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ABSTRACT

This report provides information on patterns of expense of students in the health professions and on the sources from which income was obtained, including any indebtedness incurred to finance the students' education. Findings indicate the proportion of married students in each class varied from 35 percent for freshmen to 65 percent for seniors. Slightly more than one half of all medical students came from families whose total annual income before taxes was less than $15,000 in 1970. Marital status was the most important determinant in the amount of money needed by medical students for their annual expenses. Average annual expenses were $4,295 for single students, while expenses for married students averaged $6,919. Expenses for students in private medical schools were nearly $1,200 higher than expenses for students in public schools. Nineteen percent of medical students' total income was derived from their own earnings and savings and an equal proportion came from a variety of loan sources. Nearly 22,000 medical students reported loans totaling $41.8 million for their professional education. The proportion of medical students who worked varied from 26 percent for single students to 44 percent for married students with one child. Sixty-five percent of all medical students had debts, which averaged $4,289 in 1971. Statistical data and detailed findings are included in the report. (MJM)

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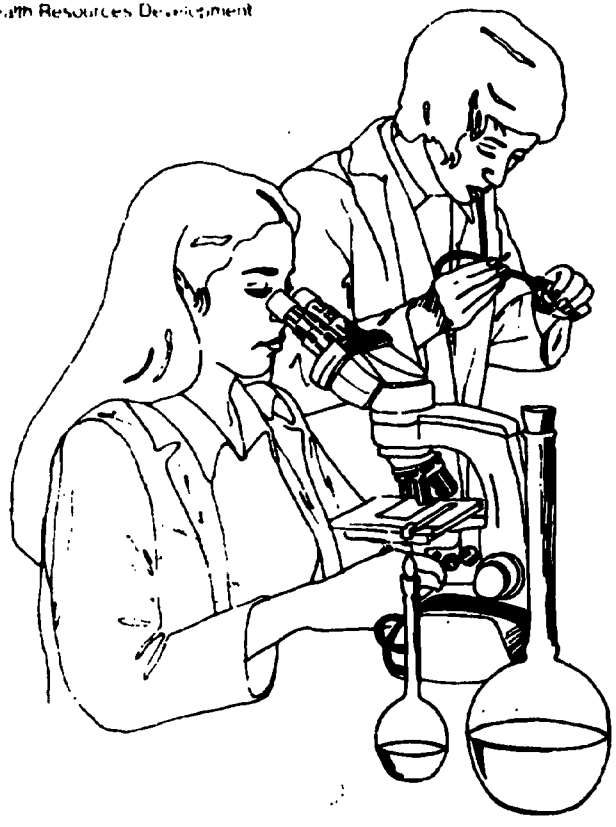

HOW MEDICAL STUDENTS FINANCE THEIR EDUCATION

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Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Therefore, the Bureau of Health Resources Development research, development, and demonstration projects, like every program or activity receiving financial assistance from the Department of Health, Education, and Welfare, must be operated in compliance with this law.

DISCRIMINATION ON BASIS OF SEX PROHIBITED

Section 799A of the PHS Act, as amended by the Comprehensive Health Manpower Training Act of 1971 (P.L. 92-157), prohibits the Secretary, HEW, from making a contract, grant, loan guarantee, or interest subsidy payment under Title VII of the PHS Act to or for the benefit of any school of medicine, osteopathy, dentistry, veterinary medicine, optometry, pharmacy, podiatry, or public health or any training center for allied health personnel unless the application for such support contains assurances satisfactory to the Secretary that the school or training center will not discriminate on the basis of sex in the admission of individuals to its training programs.

NOTE:

Work herein was initiated in the Division of Manpower Intelligence, which was a component of the Bureau of Health Resources Development until March 1, 1974, when it was dissolved in conjunction with the reorganization of the Bureau.

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FOREWORD

This report is based on a survey sponsored by the Bureau of Health Manpower Education (now the Bureau of Health Resources Development) to determine how students in the health professions of medicine, osteopathy, dentistry, optometry, pharmacy, podiatry, and veterinary medicine financed their educations during the 1970-71 school year. The purpose of this nationwide survey was to provide information on patterns of expenses of students and on the sources from which income was obtained, including any indebtedness incurred to finance the students' educations.

The survey was made by a private research organization, under contract, in cooperation with various professional schools, the Association of American Medical Colleges, the American Osteopathic Association, the American Dental Association, the American Optometric Association, the American Association of Colleges of Pharmacy, the American Association of Colleges of Podiatric Medicine, and the American Veterinary Medical Association. A summary report, "How Health Professions Students Finance Their Education," has been published as DHEW Publication No. (HRA) 74-13. Two similar reports on earlier surveys covering only medical and osteopathic students have also been published by the U.S. Public Health Service, the first in 1965 and the second in 1970. This report presents detailed findings for medical and osteopathic students from the 1971 Survey and is similar in content to the reports based on the 1964 and 1968 surveys. It was prepared by Anna R. Crocker of the Division of Manpower Intelligence, under the general direction of Howard V. Stambler, Assistant Director for Manpower and Program Analysis.

W A Lybrand

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INTRODUCTION

During the 1970-71 academic year, a survey of students in the professional schools of medicine, osteopathy, dentistry, optometry, pharmacy, podiatry, and veterinary medicine was conducted under the sponsorship of the Bureau of Health Resources Development, (then the Bureau of Health Manpower Education), Division of Manpower Intelligence, in cooperation with the professional school organizations of these disciplines. The survey was designed to find out how students in these schools finance their professional education, and to what extent they have used loan and scholarship funds made available under the Health Professions Educational Assistance Act. This report describes detailed survey findings concerning medical and osteopathic students.

The Health Professions Educational Assistance Act of 1963 (Public Law 88-129), was enacted on September 24, 1963, adding a new Part C of Title VII of the Public Health Service Act, and authorizing a long-term, low-interest loan program for students of medicine, osteopathy, and dentistry. Subsequent legislation extended the program to students of optometry, pharmacy, podiatry, and veterinary medicine.

Although the Health Professions Educational Assistance Act of 1963 authorized funds for Fiscal Year 1964, the first money was available for the academic year 1964-65.

The Health Professions Educational Assistance Amendments of 1965 (Public Law 89-290), were enacted on October 22, 1965, adding a new Part E to Title VII of the Public Health Service Act. This new legislation authorized a program of scholarship grants for students of medicine, osteopathy, dentistry, pharmacy, podiatry, and optometry. The program was extended by subsequent legislation to include students of veterinary medicine. (In the remainder of this report, the Health Professions Educational Assistance Act of 1963, or the Health Professions Educational Assistance Amendments of 1965, will be referred to simply as HPEAA.)

More specifically, Part C, Title VII, of the Public Health Service Act, as amended, authorized the establishment of student loan funds in participating public or other nonprofit schools of medicine, osteopathy, dentistry, pharmacy, podiatry, and veterinary medicine, located in a State, the District of Columbia, Puerto Rico, or the Virgin Islands. In Fiscal Year 1968, medical schools capitalized their student loan funds, authorized under HPEAA by (1) the Federal Capital Contribution method, (2) the Revolving Fund method, or (3) both methods. Under the Federal Capital Contribution method, schools matched the award with $1.00 of non-Federal funds for every $9.00 of Federal funds. Schools utilizing the revolving fund method borrowed directly from the Federal Government. These loans, repayable to the Government over a period of 20 years, required no matching funds. Administration of the funds is the responsibility of the school.

Survey Design

The 1971 survey basically utilized a sample of both health professional schools and students in those schools. From the total of 101 medical schools, a sample consisting of one out of every three schools, stratified by geographic division and type of control, was selected. Questionnaires were mailed in January 1971, to a randomly selected sample of 3,290 medical students, or 25 percent of the students enrolled in these schools. All of the 7 osteopathic colleges were included in the survey, and questionnaires were mailed to a fifty percent sample of students enrolled in these schools (1,062 students).

A total of 3,712 questionnaires was returned by respondent students: 2,793 by medical students (85 percent of those sent questionnaires) and 919 by osteopathic students (87 percent). Variation in the response rate from students in individual medical schools ranged from 50 percent to 100 percent. In 15 of the 34 medical schools in the sample, the rate of response was between 86 percent and 90 percent. Response rates for the individual osteopathic schools ranged from 78 percent to 100 percent.

The proportionate response from freshmen was greater in both medical and osteopathic schools than that for students in other classes, duplicating a finding in both the 1964 and 1968 surveys. However, the differences between the response rates from freshmen and from other students were less in 1971 than in previous years.

Table 1
DISTRIBUTION OF MEDICAL AND OSTEOPATHIC SCHOOLS BY PERCENT OF RETURNS

Percent of returns	Number of medical schools in sample	Number of osteopathic schools
Total	34	7
50 60	1	
61 70	2	
71 80	2	1
81 85	6	2
86 90	15	2
91 95	6	1
96 100	2	1

Table 2
COMPLETENESS OF RETURNS FOR EACH CLASS

Medical or osteopathic school class	Total students academic year 1970-71 [1]	Questionnaires mailed	Questionnaires returned	Percent returned
Medical schools				
All classes	40,181	3,290	2,793	85
Freshman	11,367	893	789	88
Sophomore	10,265	826	684	83
Junior	9,657	819	697	85
Senior	8,892 [2]	752	623	83
Osteopathic schools				
All classes	2,151	1,062	924	87
Freshman	623	303	274	90
Sophomore	555	278	238	86
Junior	498	249	223	90
Senior	475	232	189	81

[1] From FY 1972 Capitation Grant Applications for each school.
[2] Includes 61 students in fifth year of school.

Adjustment of the raw data to approximate national enrollment figures was achieved in two basic steps: (1) survey student responses in each medical school class were inflated to represent the actual enrollment of that class in that school, and (2) the corrected data of the schools in the sample were inflated to represent the actual enrollment of all schools in each geographic division of the country.

It should be noted that schools with predominantly Black, or predominantly female enrollments were not selected in the sample. Consequently, the reader should exercise caution in the interpretation and use of survey findings for Blacks or women. Furthermore, small differences between numbers should be viewed with caution.

PART 1

Characteristics

The proportion of married students in each class varied from 35 percent for freshmen to 65 percent for seniors. Slightly more than one-half of all medical students came from families whose total annual income before taxes was less than $15,000 in 1970. However, the median income of $14,627 for medical students' families was considerably greater than the median income of $9,867 for all families in the United States. In general, medical students came from families that ranked above the national levels in income, education, and occupation. Although 38 percent of the total population of the United States lived in places of less than 5,000 population, only 18 percent of all medical students lived in such places.

Annual Expenses

Marital status was the most important determinant in the amount of money needed by medical students for their annual expenses. Average annual expenses were $4,295 for single students, while expenses for married students averaged $6,919.

Expenses for students in private medical schools were, on the average, nearly $1,200 higher than expenses for students in the public schools.

Tuition, fees, books, and other school expenses accounted for 39 percent of the total expenses reported by students in private medical schools and 26 percent of the expenses of students in the public schools. Forty-three percent of the total expenses of students in the public medical schools was for board and lodging, compared with 36 percent of total expenses for students in private medical schools.

Source of Income

Nineteen percent of medical students' total income was derived from their own earnings and savings and an equal proportion came from a variety of loan sources. Spouse's earnings accounted for 30 percent of total income and gifts

and/or loans from family for 20 percent. Federal Health Professions scholarships contributed 3 percent of total medical students' income, and research grants, State government scholarships, and other non-refundable funds accounted for the remaining 5 percent.

Sixty-seven percent of all medical students reported some income from their own earnings and savings, and 54 percent reported receiving financial help from their parents. Among married students, the proportion with income from spouse's earnings ranged from 86 percent for those with no children to only 44 percent for those with two or more children.

Medical students' income from their own earnings and savings averaged $1,578; the average contribution from family amounted to $2,249. Married students reported an average of $4,540 from spouse's earnings.

Nearly 22,000 medical students reported loans totaling $41.8 million for their professional education. One out of every four medical students reported a loan from HPLAA funds; one out of eight students reported loans from "other and unspecified sources," and one out of ten reported receiving a loan from the medical school or university. One out of every twelve students had borrowed from a private bank.

The average loan from HPLAA funds amounted to $1,084, a smaller average amount than from any other loan source.

Scholarships or non-refundable grants were reported by nearly 19,000 medical students, and the average amount reported was $1,199.

Work Experience

The proportion of medical students who worked varied from 26 percent for single students to 44 percent for married students with one child. Twenty percent of the married students with one child worked from 20 to 29 hours per week.

One out of every eleven medical students reported income averaging $845 from Federally-funded research or training grants.

Deficits and Surpluses

Thirty-seven percent of all medical students reported deficits for the 1970-71 school year.[1] While the average amount of deficit was $1,511 for all students, the average was $1,977 for single students and over $2,000 for married students in each marital status category.

The highest proportion of students with surpluses and the largest average amount of surplus were for married seniors with no children. Two-thirds of these medical students reported surpluses averaging $2,752. The smallest proportion of students with surpluses was for single freshmen, with three out of ten reporting surpluses which averaged $543.

Indebtedness

Sixty-five percent of all medical students had debts, which averaged $4,289 in 1971. As would be expected, the highest proportion of students with debts and the largest average debt were for married students with two or more children. Eighty-eight percent of these students reported debts, averaging $7,007. Senior medical students had debts averaging $5,504.

[1] The relationship between income and expenses was computed by subtracting total expenses incurred or expected in the year beginning July 1970 and ending June 1971 from total income available or expected during the same period.

PART 2

Characteristics of Medical Students

In 1971, 47 percent of all medical students were married. This represents an increase of about 15 percent over the proportion of medical students who reported themselves as married at the time of the 1968 and 1964 surveys.

Among freshmen medical students, thirty four percent were married at the time of the 1971 survey, as compared with only 22 percent in the 1968 survey. While the proportion of married students in each medical school class was greater in 1971 than in 1968 or in 1964, the largest percentage increase occurred among first year students.

Table 3
DISTRIBUTION OF MEDICAL STUDENTS
BY MARITAL STATUS AND MEDICAL SCHOOL CLASS

Marital status	All classes	Freshman	Sophomore	Junior	Senior
Number of students	40,181	11,367	10,265	9,657	8,892[1]
All students[2]	100%	100%	100%	100%	100%
Single	53	65	59	49	35
Married, no children	34	23	31	39	47
Married, one child	10	9	7	9	13
Married, two or more children	3	3	3	3	5

[1] Includes students in fifth year of school.
[2] Includes data for students who were widowed, divorced, or separated

The proportion of married students in each class in public medical schools exceeded the comparable proportion of students in private medical schools.

Table 4
DISTRIBUTION OF MEDICAL STUDENTS BY MARITAL STATUS AND CONTROL OF MEDICAL SCHOOL

Marital status	All schools	Public schools	Private schools
Number of students	40,181	24,338	15,843
All students [1]	100%	100%	100%
Single	53	49	59
Married, no children	34	36	32
Married, one child	10	12	6
Married, two or more children	3	3	3

[1] Includes data for students who were widowed, divorced, or separated.

Table 5
COMPARISON OF DISTRIBUTION OF MEDICAL STUDENTS WHO WERE MARRIED, BY MEDICAL SCHOOL CLASS AND CONTROL OF MEDICAL SCHOOL, 1968 [1] and 1971

	1968			1971		
Medical school class	All schools	Public schools	Private schools	All schools	Public schools	Private schools
Total	41%	45%	36%	47%	51%	41%
Freshman	22	26	18	35	38	28
Sophomore	36	40	31	41	45	34
Junior	50	54	44	51	57	43
Senior	60	65	55	65	67	63

[1] Source: U.S. Department of Health, Education, and Welfare, Public Health Service. *How Medical Students Finance Their Education*, June 1965, PHS Publication No. 1336-1. U.S. Government Printing Office, Washington, D.C. 20402.

The proportion of married students ranged from 38 percent in New England and the Pacific Division to 57 percent in the East South Central Division. In five of the nine Divisions, more than one-half of the medical students were married

Table 6
PROPORTION OF MEDICAL STUDENTS WHO WERE MARRIED, BY GEOGRAPHIC DIVISION AND CONTROL OF MEDICAL SCHOOL

Geographic division [1]	All schools	Public schools	Private schools
Total	47%	51%	41%
New England	38	69	35
Middle Atlantic	40	40	40
South Atlantic	55	60	43
East South Central	57	56	57
West South Central	55	55	[2]
East North Central	45	47	41
West North Central	52	56	43
Mountain	51	51	0[3]
Pacific	38	40	33

[1] The States with medical schools included in each Division are: New England-Connecticut, Massachusetts, New Hampshire, Rhode Island, Vermont; Middle Atlantic-New Jersey, New York, Pennsylvania; South Atlantic-Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia (also District of Columbia and Puerto Rico; East South Central-Alabama, Kentucky, Mississippi, Tennessee; West South Central-Arkansas, Louisiana, Oklahoma, Texas; East North Central-Illinois, Indiana, Michigan, Ohio, Wisconsin; West North Central-Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Mountain-Arizona, Colorado, New Mexico, Utah; Pacific-California, Hawaii, Oregon, Washington.

[2] Two private medical schools in the West South Central Division were not selected in the sample.

[3] There are no private medical schools in the Mountain Division.

Family Income

In this study, the freshmen students were asked to provide the best estimate of their parents' net personal income and income for the calendar year [illegible]. Seniors in the 1968 survey students were asked to provide estimates of their parents' combined gross annual income. A comparison of medical students enrolled in 1971 and 1968 by family income cannot be made from the two surveys.

A comparison of the family income of students in 1971 by medical school class reveals that about [illegible] percent of the students in each class came from families with net income below $5,000. One out of every four medical students came from a family whose net income was between $10,000 and $15,000. Whereas 24 percent of the juniors and 22 percent of the sophomores and seniors came from families with income of $25,000 or more, only 19 percent of the freshmen came from families with incomes in this category.

Table 7

DISTRIBUTION OF MEDICAL STUDENTS BY FAMILY INCOME AND MEDICAL SCHOOL CLASS

Family income	All classes	Medical school classes			
		Freshmen	Sophomores	Juniors	Seniors
Total[1]	100	100	100	100	100
Less than $5,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
$5,000 - $9,999	20	20	19	20	23
$10,000 - $14,999	25	27	26	25	23
$15,000 - $19,999	15	17	14	14	15
$20,000 - $24,999	13	10	13	12	12
$25,000 or more	22	19	22	24	22

[1] Based on students who supplied data on family income.

Table 8

DISTRIBUTION OF MEDICAL STUDENTS BY FAMILY INCOME AND CONTROL OF MEDICAL SCHOOL

Family income	All schools	Public schools	Private schools
Total[1]	100	100	100
Less than $5,000	4	7	7
$5,000 - $9,999	20	21	19
$10,000 - $14,999	25	28	21
$15,000 - $19,999	15	16	13
$20,000 - $24,999	11	11	11
$25,000 or more	22	17	29
Median income	$14,627	$13,888	$16,530

[1] Based on students who supplied data on family income.

Family Occupations

Fifteen percent of the fathers of medical students were physicians and an additional 8 percent worked in other medical professions, primarily dentistry and pharmacy. (An additional 28 percent of the fathers of medical students in both public and private schools worked in other professional occupations.) Of all employed males 40 years old and over in the United States, about 15 percent were in occupations classified as "professional and technical, medical and other health" occupations.

Table 9

DISTRIBUTION OF MEDICAL STUDENTS IN PUBLIC AND PRIVATE SCHOOLS BY FATHER'S OCCUPATION IN COMPARISON WITH OCCUPATIONAL DISTRIBUTION OF EMPLOYED MALES 40 YEARS OLD AND OVER IN THE UNITED STATES

Occupation	Medical students' fathers			Employed males, 40 years old and over, 1970 [1]
	All schools	Public schools	Private schools	
Total all occupations [2]	100	100	100	100
Physician	18	13	18	1
Medical and other health worker	8	6	8	1
Other professional and technical	28	26	28	11
Owner, manager, proprietor	20	19	21	14
Clerical	5	8	5	7
Sales	7	7	8	7
Craftsman, skilled worker	10	10	10	22
Unskilled worker	6	7	8	31
Farmer, farm worker	3	5	1	6

[1] Source: U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, *Occupational Characteristics*, 1970 Census of Population, PC(2) 7A.

[2] Details may not add to total due to independent rounding.

Fifteen percent of the employed mothers of medical students worked as physicians or other medical and health workers whereas only 5 percent of the employed females 40 years old or older in the United States worked in these occupations.

The proportion of all medical students whose mothers worked in professional occupations other than in the health and medical fields, was nearly 3 times greater than the proportion of all employed women 40 years old and over in these occupations. However, the proportion of medical students' mothers who worked in clerical occupations was very close to the percent of all employed women 40 years old and over who were clerical workers in 1970. Fifty-seven percent of all medical students came from a family in which the mother did not work outside of the home.

Table 10

DISTRIBUTION OF MEDICAL STUDENTS IN PUBLIC AND PRIVATE SCHOOLS BY MOTHER'S OCCUPATION IN COMPARISON WITH OCCUPATIONAL DISTRIBUTION OF EMPLOYED FEMALES 40 YEARS OLD AND OVER IN THE UNITED STATES

Occupation	Medical students' mothers who worked			Employed females, 40 years old and over [1]
	All schools	Public schools	Private schools	
Total all occupations	100%	100%	100%	100%
Physician	1	1	2	1
Medical and other health worker	14	16	12	4
Other professional and technical	30	31	29	11
Owner, manager, proprietor	6	6	7	5
Clerical	32	32	30	30
Sales	6	5	7	8
Craftsman, skilled worker	2	2	2	2
Unskilled worker	9	7	11	38
Farmer, farm worker	–			1

– None.

[1] Source: U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, *Occupational Characteristics*, 1970 Census of Population, PC(2) 7A.

ily Educational Level

Thirty-five percent of all medical students in 1971 came from families where the father had graduate or professional education beyond college. About 5 percent of all males 40 years old or older in the United States had this amount of education (in 1970).

In private medical schools, 40 percent of the students' fathers had graduate or professional training beyond college, while in the public schools 32 percent of the students' fathers had education beyond college.

Eighteen percent of all medical students came from a family in which the mother had completed college, more than 4 times the proportion of all women 40 years old or over who had completed college. The proportion of medical students whose mothers had graduate or professional education beyond college in 1971

Table 11

DISTRIBUTION OF MEDICAL STUDENTS IN PUBLIC AND PRIVATE SCHOOLS BY EDUCATIONAL LEVEL OF FATHER IN COMPARISON WITH EDUCATIONAL LEVEL OF MALES 40 YEARS OLD AND OVER IN THE UNITED STATES

Educational level	Medical students' fathers			United States males 40 years old and over [1]
	All schools	Public schools	Private schools	
All levels	100%	100%	100%	100%
Eighth grade or less	8	9	6	38
Some high school	6	6	7	19
Completed high school	17	19	15	23
Specialized technical training	6	6	6	[2]
Some college	14	14	11	9
Completed college	14	14	15	6
Graduate or professional	35	32	40	5

[1] Source: U.S. Department of Commerce, Bureau of the Census, *Detailed Characteristics*, United States Summary, 1970 Census of Population, PC(1)-D1.

[2] Category not reported separately.

was 14 percent, or seven times that of all females 40 years old or over.

There were only minor differences between the distributions of students in public and private medical schools by mothers' educational level.

Table 12

DISTRIBUTION OF MEDICAL STUDENTS IN PUBLIC AND PRIVATE SCHOOLS BY EDUCATIONAL LEVEL OF MOTHER IN COMPARISON WITH EDUCATIONAL LEVEL OF FEMALES 40 YEARS OLD AND OVER IN THE UNITED STATES

Education level	Medical students' mothers			United States females 40 years old and over[1]
	All schools	Public schools	Private schools	
All levels	100	100	100	100
Eighth grade or less	4	4	[illegible]	35
Some high school	[illegible]	[illegible]	6	20
Completed high school	28	28	27	29
Specialized technical training	11	11	10	[2]
Some college	18	18	18	10
Completed college	18	18	19	4
Graduate or professional	14	14	15	2

[1] Source: U.S. Department of Commerce, Bureau of the Census, *Detailed Characteristics, United States Summary, 1970 Census of Population*, PC(1)-D1.

[2] Category not reported separately.

Size of Hometown

The distribution of medical students, by size of hometown, was marked by a different from the distribution of the total population in the United States. The places in which medical students lived were fairly evenly divided among the several size categories, the proportions ranging from 18 percent from hometowns of under 5,000 population to 22 percent from places of 100,000 to 500,000 population. In the United States as a whole, thirty-eight percent of the total population lived in places of under 5,000 population and only 16 percent lived in cities of 500,000 or more. While one out of every five medical students came from a city having a population between 100,000 and 500,000, only one out of every eight persons in the United States lived in a city of this size.

Table 15
DISTRIBUTION OF MEDICAL STUDENTS BY SIZE OF HOMETOWN AND CONTROL OF MEDICAL SCHOOL

Size of hometown	All schools	Public schools	Private schools	Total United States population 1970[1]
Total	100	100	100	100
500,000 or more	20	16	27	16
100,000–499,999	22	26	15	12
25,000–99,999	21	20	23	17
5,000–24,999	19	20	19	17
4,999 or less	18	18	16	38

[1] Source: U.S. Department of Commerce, Bureau of the Census, National Data Book and Guide to Statistics, United States Summary, 1970 Census of Population, PC (1)-A1.

PART 3

Marital Status

As in previous studies of medical students' financing, marital status was found to be the most important determinant in the amount of money needed by a medical student. Average expenses were $6,919 for married medical students in 1971, while expenses for unmarried students averaged $4,295. These amounts represent increases of 20 percent and 26 percent, respectively, over the 1968 average expenses of $5,777 for married students and $3,421 for single students.

Table 14
DISTRIBUTION OF MEDICAL STUDENTS BY
TOTAL ANNUAL EXPENSES AND MARITAL STATUS

Total annual expenses	All students	Marital status: Single	Married, no children	Married, one child	Married, two or more children
Number of students	40,181	21,277	13,786	3,768	1,350
All students [1]	100%	100%	100%	100%	100%
Less than $3,000	11	19	1	1	1
$ 3,000 – $3,999	16	27	4	6	3
$ 4,000 – $4,999	20	25	12	22	8
$ 5,000 – $5,999	19	19	18	20	17
$ 6,000 – $6,999	12	5	24	19	21
$ 7,000 – $7,999	9	2	18	15	23
$ 8,000 – $9,999	9	2	18	11	11
$10,000 or more	4	1	7	6	16

[1] Includes data for students who were widowed, divorced, or separated.

The medical schools selected in the sample for this survey did not include the schools having either a predominantly Black enrollment or a predominantly female enrollment. Consequently, survey findings for Black students and women students are based on information from only those female students and those Black students who were attending coeducational medical schools with predominantly White enrollments, and may not be representative for women and Blacks in all schools. These findings are shown in Tables 15 and 16.

Table 15
AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS BY MARITAL STATUS AND SEX

Marital status	both sexes	Male	Female
Total [1]	$5,529	$5,553	$5,283
Single	4,295	4,269	4,494
Married, no children	6,930	6,898	7,432
Married, one child	6,573	6,591	6,215
Married, two or more children	7,774	7,815	5,964

[1] Includes students who were widowed, divorced, or separated.

Table 16
AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS BY MARITAL STATUS AND RACE

Marital status	All races	White	Black	Other
Number of students [1]	40,181	38,723	794	664
Total	$5,529	$5,532	$6,579	$4,087
Single	4,295	4,296	5,166	3,362
Married, no children	6,930	6,935	7,878	5,876
Married, one child	6,573	6,542	6,699	--
Married, two or more children	7,774	7,526	8,461	

No responses from students in this category.
[1] Includes students who were widowed, divorced, or separated.

ital Status and Location and Control of Medical School

Because there are different proportions of medical students attending public and private schools and because living costs vary in different sections of the country, there is significant variation from one part of the country to another in the average expenses of students.

The gap between the average expenses of students in private and public medical schools widened from about $8[illegible]0 in 1968 to nearly $1,200 in 1971. The difference continues to be largely due to the higher tuition and fees in private schools, since the differences in expenses for other items are relatively small.

Expenses for male medical students averaged $5,553 in 1971, as compared with $5,283 for female students. However, female students who were single or who were married with no children reported higher average expenses than male students in those categories. These differences may be the result of sampling variation.

As would be expected, married students with two or more children had the highest average expenses ($7,774), and single students had the lowest ($4,295). Both amounts were more than 20 percent higher than in [illegible]S.

The tables that follow illustrate the impact of marital status, location and control of medical school on the amounts expended by medical students.

In all geographic divisions, average expenses were higher for students in private medical schools than in public sch[illegible]. Average expenses of students in private medical schools in 1971 ranged from $5,534 in the East South Central Division to $6,699 in the South Atlantic Division. The lowest average expense for students in private medical schools in any Division exceeded the average expense for students in public medical schools in all Divisions except New England.

Table 17

AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS BY CONTROL OF MEDICAL SCHOOL, MARITAL STATUS, AND MEDICAL SCHOOL CLASS

Control of medical school and marital status	All classes	Medical school class			
		Freshman	Sophomore	Junior	Senior
All schools — total [1]	$5,529	$4,897	$5,262	$5,879	$6,254
Single	4,295	4,059	4,166	4,612	4,630
Married, no children	6,930	6,550	6,665	7,015	7,288
Married, one child	6,573	5,867	7,125	6,782	6,704
Married, two or more children	7,774	7,847	8,362	9,205	6,608
Public schools — total [1]	5,064	4,448	4,784	5,568	5,678
Single	3,650	3,415	3,552	3,856	4,147
Married, no children	6,445	6,122	6,066	6,966	6,484
Married, one child	6,251	5,795	6,701	6,356	6,393
Married, two or more children	6,980	7,789	7,926	7,058	6,040
Private schools — total [1]	6,242	5,676	5,978	6,338	7,070
Single	5,125	5,015	4,932	5,440	5,229
Married, no children	7,757	7,397	7,852	7,100	8,389
Married, one child	7,616	6,400	8,209	8,165	7,380
Married, two or more children	8,923	7,595	8,853	9,070	7,598

[1] Includes data for students who were widowed, divorced, or separated.

Table 15

COMPARISON OF AVERAGE ANNUAL EXPENSES OF SENIOR MEDICAL STUDENTS IN 1963, 1968, and 1971, BY MARITAL STATUS

Marital Status	1963	1968	1971
[illegible]	$4,113	$4,954	$6,254
Single	[illegible]	[illegible]	4,630
Married [illegible]	[illegible]	5,889	7,28[illegible]
Married [illegible]	4,9[illegible]	[illegible]	6,703
Married [illegible]	[illegible]	6,089	6,608

[illegible] Welfare, Public Health Service [illegible] Education and Welfare, Public Health Service, January 1963, PHS Publication [illegible] Washington, D.C. [illegible]

[illegible] Welfare, Public Health Service [illegible] Education and Welfare, Public Health Service, January [illegible], PHS Publication [illegible] Printing Office, Washington, D.C. [illegible]

[illegible] Statistics were not available for married, or separated.

Table 19

AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS BY GEOGRAPHIC DIVISION AND MARITAL STATUS

Geographic division [2]	All students [1]	Marital status			
		Single	Married no children	Married one child	Married two or more children
All divisions	$5,529	$4,295	$6,930	$6,574	$7,774
New England	6,541	5,570	7,996	7,800	9,181
Middle Atlantic	5,583	4,534	7,024	6,466	10,140
South Atlantic	5,905	4,687	7,179	6,156	7,639
East South Central	5,194	4,050	5,880	6,484	6,363
West South Central	5,233	3,452	6,589	6,833	7,747
East North Central	5,702	4,229	7,413	8,027	7,086
West North Central	5,180	3,813	6,528	6,296	5,328
Mountain	4,543	2,946	6,299	4,750	6,906
Pacific	4,913	3,984	6,543	5,446	6,877

[1] Includes data for students who were widowed, divorced, or separated.

[2] See footnote at end of Table 6 for States in each geographic division.

Table 20

AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS BY GEOGRAPHIC DIVISION AND CONTROL OF MEDICAL SCHOOL

Geographic division [1]	All students	Medical schools	
		Public	Private
All divisions	$5,529	$5,064	$6,242
New England	6,541	5,811	6,613
Middle Atlantic	5,583	5,003	6,012
South Atlantic	5,905	5,501	6,699
East South Central	5,194	4,795	5,534
West South Central	5,233	5,233	[2]
East North Central	5,702	5,262	6,488
West North Central	5,180	4,882	5,904
Mountain	4,543	4,543	[3]
Pacific	4,913	4,228	6,333

[1] See footnote at end of Table 6 for States in each geographic division.

[2] The two private schools in the West South Central Division were not selected in the sample.

[3] There are no private medical schools in the Mountain Division.

Expenses for Various Items

Tuition and fees for first-year students in public medical schools ranged from $200 to $1,000 for residents of the State in which they were attending medical school, and from $200 to $2,140 for non-residents. Tuition and fees for all students in public medical schools in 1971 averaged $1,319. In private medical schools, students' expenses for tuition and fees ranged from $1,068 to $2,620. (Only three private schools cited a lower tuition for residents.) For students in private medical schools, expenses for tuition and fees averaged $2,430, a figure 85 percent higher than the average for students in public medical schools.

Single medical students had the highest average school expenses ($1,821 for tuition and fees) and the lowest average expenses in each of the other expense categories. Average expenses of married students did not increase consistently with increases in family size, since the average expenses reported by married students with one child were lower in each expense category except the "all other" category than those for other married students.

Eighty-seven percent of the married medical students and fifty-eight percent of the unmarried students lived in apartments or houses outside school control. The average expenses reported by married students living in these apartments or houses were considerably higher than those reported by all other medical students. The highest average expenses ($8,093) were reported by married students with two or

Table 21
AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS FOR VARIOUS ITEMS, BY CONTROL OF MEDICAL SCHOOL AND MARITAL STATUS

Control of medical school and expense item	All students	Marital status: Single	Married, no children	Married, one child	Married, two or more children
All schools: Total expenses	$5,529	$4,295	$6,930	$6,573	$7,774
School expenses	1,758	1,821	1,744	1,485	1,706
Lodging and maintenance of living quarters	1,263	857	1,715	1,597	1,915
Board	956	725	1,177	1,171	1,615
All other	1,552	892	2,294	2,320	2,538
Public schools: Total expenses	5,064	3,650	6,445	6,251	6,980
School expenses	1,319	1,305	1,358	1,295	1,242
Lodging and maintenance of living quarters	1,247	839	1,637	1,533	1,887
Board	932	672	1,146	1,124	1,684
All other	1,566	834	2,304	2,299	2,163
Private schools: Total expenses	6,242	5,125	7,757	7,616	8,923
School expenses	2,430	2,489	2,401	2,106	2,362
Lodging and maintenance of living quarters	1,289	879	1,846	1,800	1,962
Board	991	789	1,232	1,325	1,617
All other	1,532	968	2,278	2,385	3,082

children living in an apartment or house outside school control, while the lowest average ($2,631) was reported by unmarried students with living arrangements categorized as "other."

Table 22
AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS FOR VARIOUS ITEMS, BY MARITAL STATUS AND MEDICAL SCHOOL CLASS

Marital status and expense item	All classes	Medical school class: Freshman	Sophomore	Junior	Senior
Single:					
Total expenses	$4,295	$4,059	$4,166	$4,612	$4,630
School expenses	1,821	1,886	1,780	1,849	1,713
Board and lodging	1,582	1,485	1,502	1,703	1,773
All other expenses	892	688	884	1,060	1,144
Married, no children:					
Total expenses	6,930	6,550	6,665	7,015	7,288
School expenses	1,744	1,805	1,802	1,680	1,723
Board and lodging	2,892	2,775	2,907	2,911	2,934
All other expenses	2,294	1,970	1,956	2,424	2,631
Married, one child:					
Total expenses	6,573	5,867	7,123	6,784	6,704
School expenses	1,485	1,606	1,418	1,534	1,382
Board and lodging	2,768	2,235	2,986	3,103	2,854
All other expenses	2,320	2,026	2,719	2,147	2,468
Married, two or more children:					
Total expenses	7,774	7,843	8,358	9,205	6,608
School expenses	1,706	1,994	1,798	1,409	1,613
Board and lodging	3,530	3,617	3,901	3,660	3,190
All other expenses	2,538	2,232	2,659	4,136	1,805

Table 23
AVERAGE ANNUAL EXPENSES OF MEDICAL STUDENTS, BY LIVING ARRANGEMENTS AND MARITAL STATUS

Living arrangements	All students [1]	Marital status			
		Single	Married no children	Married one child	Married two or more children
Total	$5,529	$4,295	$6,930	$6,573	$7,774
Dormitory	4,916	4,846	5,878	6,806	5,400
School owned or control	5,349	4,486	6,012	6,231	6,481
Apartment or house	5,959	4,490	7,069	6,695	8,093
Room in private or fraternity house	3,810	3,703	5,722	4,238	
Parents or relatives home	3,140	2,955	6,467	4,648	4,550
Hospital (as extern)	4,235	3,931	8,720	6,460	
Other	4,284	2,631	5,559	3,880	6,970

[1] Includes data for students who were widowed, divorced, or separated.
No students in this category.

Aggregate Expenses

Aggregate annual expenses of medical students during the 1970-71 school year were $222.7 million. In the public medical schools, aggregate expenses increased sharply from $70.3 million in 1968 to $123.5 million in 1971, much more rapidly than the 38 percent increase in enrollment in medical schools under public control. Aggregate expenses for students in private medical schools climbed more slowly, by 13 percent, from $79.1 million in 1968 to $99.2 million in 1971, as compared with a 25 percent increase in enrollments in these schools.

Table 24

AGGREGATE ANNUAL EXPENSES OF MEDICAL STUDENTS, BY EXPENSE ITEM AND CONTROL OF MEDICAL SCHOOL, 1968[1] and 1971

Expense item	All schools	Public schools	Private schools
	1968		
Total expenses	$149,415,000	$70,270,000	$79,145,000
School expenses	51,373,000	18,400,000	32,973,000
Lodging and maintenance of living quarters	31,317,000	16,431,000	14,886,000
Board	27,513,000	14,032,000	13,481,000
All other expenses	39,212,000	21,407,000	17,805,000
	1971		
Total expenses	$222,728,000	$123,512,000	$99,216,000
School expenses	72,544,000	32,993,000	39,551,000
Lodging and maintenance of living quarters	49,369,000	29,674,000	19,695,000
Board	37,424,000	22,195,000	15,229,000
All other expenses	63,391,000	38,650,000	24,741,000

[1] Source: U.S. Department of Health, Education, and Welfare, Public Health Service, *How Medical Students Finance Their Education*, January 1970. PHS Publication No. 1336-1. U.S. Government Printing Office, Washington, D.C. 20402.

PART 4

In the 1971 study, as in the studies conducted in 1964 and 1968, the sources of income of medical students were grouped into six major categories. These are:

1. *Own earnings and savings* — money earned by the student during school terms and between terms, money withdrawn from savings, reserves, sales of stock, income from investments, business, real estate, etc.;
2. *Spouse's earnings* — spouse's wages and salary, and loans obtained by spouse;
3. *Gifts and/or loans* — from parents, in-laws, relatives, and friends, including money borrowed by parents;
4. *Loans outside family* — from the medical school or university, from the Federal Government under the Health Professions Educational Assistance Act, bank loans guaranteed by the American Medical Association Education and Research Foundation, from States, medical societies, fraternal organizations, banks, and loan companies;
5. *Nonrefundable grants* — scholarships, grants-in-aid, tuition remissions, etc., from any source;
6. *All other sources* — military reserve pay, G.I. Bill, and income from other and unspecified sources.

Most medical students use a variety of sources to finance their medical education. Few students complete their training without some financial help from their families, but the proportion of students reporting such help has been decreasing steadily since 1964. In that year, 71 percent of all medical students received some financial help from their families; this proportion dropped to 65 percent in 1968 and to 54 percent in 1971. Over this same period, increases were noted in the proportions of students who reported income from their own earnings and from loans.

Sixty-three percent of the single students and 42 percent of the married students reported that some portion of their income in 1971 came from parents or other relatives.

Marital status accounts for the largest variation in the sources from which medical students' income was derived in 1971. Among single students, parents' contributions were the principal source of income accounting for 36 percent of the income reported. Married students reported that only 11 percent of their income came from parents or other relatives, and this proportion was the same for each category of married students. However, spouse's contributions accounted for 48 percent of married medical students' income, although the proportion decreased from 55 percent for married students with no children to only 19 percent for those with two or more children.

The proportion of income from their own earnings and savings reported by married students increased as family size increased, reaching a high of 24 percent the same as for unmarried students for those with two or more children. It is of interest that the same pattern was observed in the proportions of income from refundable funds reported by married and single students, i.e., the proportions increased as family size increased for married students and reached a high of 25 percent, the same proportion as for single medical students.

Table 25
SOURCE OF INCOME OF MEDICAL STUDENTS BY MARITAL STATUS

Source of income	All students[1]	Marital status: Single	Married no children	Married one child	Married two or more children
Total income	100	100	100	100	100
Total non-refundable funds	81	75	88	78	75
Own earnings and savings	18	24	13	21	24
Spouse's earnings	30	*	55	30	19
Gifts loans from family	20	36	11	11	11
Federal Health Professions Scholarship	3	4	1	*	6
NIH-supported research grants, etc	1	1	1	1	*
Other Federal research grants, etc	1	1	1	1	*
State government scholarship	1	1	1	1	1
Other non-refundable funds	*	8	5	9	14
Total refundable funds	19	25	12	22	25
Federal Health Professions loan	5	6	3	9	7
Federal Office of Education guaranteed loan	2	3	2	2	3
Own professional school loan	2	4	1	2	3
State government loan	3	4	2	2	3
Private bank loan	2	2	2	4	3
Other loans	5	6	2	3	6

[1] Includes students who were widowed, divorced, or separated
* Less than 0.5 percent

As would be expected, students from families with incomes of less than $20,000 depended more heavily on loans to finance their medical education than students who came from families with higher incomes. The proportion of students' income derived from loans declined steadily as family income increased, going from a high of 26 percent for students from families whose income was less than $10,000 to only 7 percent for those whose family income was $25,000 or more.

The pattern of sources utilized by students to finance their medical education varied between public and private medical schools. Thirty-three percent of the income reported by students in public medical schools was derived from spouse's contributions, whereas 25 percent of the income reported by students in private medical schools came from this source. This differential may be partly explained by the greater proportion of married students in public medical schools. Students in private schools reported receiving 27 percent of their income from gifts or loans from family, whereas only 15 percent of the income of students in public medical schools came from this source. There was little difference in the proportions of income from their own earnings and savings reported by the two groups of students. Only minor differences as were noted in the pattern of other loan sources utilized by the two groups, with the single exception of loans from the student's professional school. Probably because of the greater availability of funds from this source in private medical schools, students in those schools reported receiving 4 percent of their income from such funds, while students in public medical schools reported only 1 percent of their income from such funds.

Seventy-one percent of the unmarried medical students and 64 percent of the married students reported income from their own earnings in 1971. These proportions were down from 19[illegible], when 82 percent of the unmarried students and 83 percent of the married reported some income from this source (Reference 1, Table 34). In 1971, the average amount of income reported from their own earnings and savings was $1,419 for single students and $1,773 for married students. These figures represent increases of 15 and 10 percent, respectively, over the average amounts reported by single and married students in 1968. Tables 28 through 32 shown the variation in average income reported and in the proportions of students reporting income by medical school class, [illegible] of medical schools, and by marital status.

The proportion of all medical students who reported income from their own earnings and savings was 67 percent in 1971, and there was considerable variation in the proportion of students with income from this source among the various classes. The proportion of single freshmen reporting income from this source was 76 percent

Table 26
SOURCE OF INCOME OF MEDICAL STUDENTS BY FAMILY INCOME

Source of income	Total	Family income: Less than $5,000	$5,000 $9,999	$10,000 $14,999	$15,000 $19,999	$20,000 $24,999	$25,000 or more
Total income	100%	100%	100%	100%	100%	100%	100%
Total non-refundable funds	81	74	74	78	78	86	93
Own earnings and savings	18	19	16	18	21	17	20
Spouse's earnings	30	25	29	34	28	31	29
Gifts, loans from family	20	4	9	14	18	29	39
Federal Health Professions Scholarship	3	8	7	3	2	2	*
NIH-supported research grants, etc.	1	1	1	1	1	1	1
Other Federal research grants, etc.	1	1	1	*	1	*	1
State government scholarship	1	2	1	1		*	*
Other non-refundable funds	7	14	10	7	6	6	3
Total refundable funds	19	26	26	22	22	14	7
Federal Health Professions loan	5	9	8	6	7	2	1
Federal Office of Education guaranteed loan	3	3	3	4	3	1	*
Own professional school loan	2	4	3	2	2	2	1
State government loan	3	4	4	3	3	2	1
Private bank loan	2	2	2	3	2	2	1
Other loans	4	4	6	4	5	5	3

* Less than 0.5 percent.

Table 27
SOURCE OF INCOME OF MEDICAL STUDENTS
BY CONTROL OF MEDICAL SCHOOL

Source of income	All schools	Public schools	Private schools
Total income [1]	100	100	100
Total non-refundable funds	81	80	83
Own earnings and savings	18	20	18
Spouse's contributions	30	33	28
Gifts loans from family	20	18	27
Federal Health Professions Scholarship	3	3	3
NIH-supported research	1	1	1
Other Federal research training	1	1	*
State government scholarship	1	1	1
Other non-refundable funds	7	6	8
Total refundable funds	19	20	17
Federal Health Professions loan	5	6	4
Federal Office of Education guaranteed loan	3	3	2
Own professional school loan	2	1	4
State government loan	3	3	2
Private bank loan	2	2	2
Other loans	4	5	4

[1] Details may not add to totals due to rounding
* Less than 0.5 percent.

the average amount they reported was $1,329. The proportion of single seniors who reported income from their own earnings and savings was 57 percent in 1971, and they reported an average of $1,583.

The numbers of single and married medical students who reported income from NIH supported research grants were nearly equal, but the average amount granted single students was about 12 percent higher than the average for married students. The number of married medical students who had income from research or training grants from federal sources outside NIH was substantially greater than the number of single students with such funds, but on the average, single students reported somewhat higher amounts.

More than one-half (54 percent) of all medical students borrowed money to help finance their education. Twenty-six percent of all students, or nearly one-half of those who reported loans, had obtained a loan from HPEAA funds. In 1968, 42 percent of all medical students reported loans, and 32 percent reported loans from HPEAA funds. (Reference 1, Table 46). The average HPEAA loan amounted to $1,240 in 1968, and $1,084 in 1971.

Forty-seven percent of all medical students held a scholarship or nonrefundable grant during the 1970-71 school year a substantial increase from the 32 percent who had such awards during the 1967-68 term. (Reference 1, Table 53). Eighteen percent of all medical students in 1971, received a grant awarded from HPEAA funds, as compared to only 9 percent in 1968. The average grant from HPEAA funds amounted to $964 in 1971 and $856 in 1968.

Own Earnings and Savings

Two out of every three medical students reported income from their own earnings and savings in 1971, and the average income from this source was $1,578.

Table 28

AVERAGE AMOUNT OF INCOME REPORTED BY SINGLE AND MARRIED MEDICAL STUDENTS BY SOURCE AND BY CONTROL OF MEDICAL SCHOOL

Source of income	All medical students			Single medical students			Married medical students		
	All schools	Public schools	Private schools	All schools	Public schools	Private schools	All schools	Public schools	Private schools
	Average amount of income reported								
Own earnings and savings	$1,578	$1,551	$1,621	$1,419	$1,263	$1,620	$1,773	$1,847	$1,623
Spouse's contribution	4,507	4,406	4,701				4,540	4,442	4,728
Gifts-loans from family	2,143	1,653	2,773	2,249	1,749	2,889	1,962	1,491	2,575
Federal health professions scholarship	964	907	1,067	945	880	1,061	988	939	1,075
NIH-supported research	844	789	927	891	779	1,035	[illegible]	798	803
Other Federal research grants, etc.	846	868	789	890	1,139	486	819	736	1,106
State government scholarship	581	595	563	563	592	525	602	598	607
Other non-refundable funds	1,752	1,790	1,714	1,483	1,402	1,546	2,033	2,109	1,938
Federal health professions loan	1,084	1,068	1,118	982	953	1,039	1,201	1,195	1,213
Federal Office of Education guaranteed loan	1,414	1,408	1,432	1,382	1,370	1,415	1,448	1,445	1,456
National defense student loan	1,155	1,136	1,203	1,184	1,169	1,216	1,130	1,111	1,187
Own professional school loan	1,269	1,020	1,443	1,234	1,055	1,363	1,322	966	1,562
State government loan	1,404	1,382	1,447	1,360	1,326	1,413	1,452	1,433	1,499
Private bank loan	1,467	1,351	1,533	1,422	1,360	1,537	1,397	1,345	1,529
Other loans	1,624	1,528	1,790	1,584	1,540	1,650	1,675	1,515	2,01[illegible]

Table 29

AVERAGE AMOUNT OF INCOME REPORTED BY SINGLE AND MARRIED MEDICAL STUDENTS BY SOURCE AND BY MEDICAL SCHOOL CLASS

Source of income	All classes	Medical school class: Freshman	Sophomore	Junior	Senior
	Average amount of income reported				
	Single medical students				
Own earnings and savings	$1,419	$1,329	$1,469	$1,410	$1,583
Spouse's contribution					
Gifts loans from family	2,249	2,025	2,199	2,570	2,405
Federal health professions scholarship	945	961	909	1,037	835
NIH-supported research	891	751	934	1,040	755
Other Federal research grants, etc	890	1,160	628	1,255	600
State government scholarship	563	624	584	471	562
Other non-refundable funds	1,483	1,392	1,303	1,453	2,040
Federal health professions loan	982	938	859	1,178	962
Federal Office of Education guaranteed loan	1,382	1,282	1,498	1,392	1,420
National defense student loan	1,184	1,117	1,375	1,292	926
Own professional school loan	1,234	1,253	1,390	1,128	1,094
State government loan	1,360	1,255	1,352	1,345	1,583
Private bank loan	1,422	1,294	1,451	1,526	1,371
Other loans	1,584	1,485	1,368	1,936	1,541
	Married medical students				
Own earnings and savings	$1,773	$1,950	$1,566	$1,655	$1,886
Spouse's contribution	4,540	5,324	4,330	4,853	5,239
Gifts loans from family	1,962	1,525	2,077	2,161	2,052
Federal health professions scholarship	988	993	810	911	1,168
NIH-supported research	799	1,093	813	772	580
Other Federal research grants, etc	819	706	823	937	1,034
State government scholarship	502	620	445	668	688
Other non-refundable funds	2,033	1,614	1,767	2,052	2,482
Federal health professions loan	1,201	1,522	855	1,086	1,338

(Continued)

Table 29 (Continued)

AVERAGE AMOUNT OF INCOME REPORTED BY SINGLE AND MARRIED MEDICAL STUDENTS BY SOURCE AND BY MEDICAL SCHOOL CLASS

Source of income	All classes	Medical school class			
		Freshman	Sophomore	Junior	Senior
	Married medical students (continued)				
Federal Office of Education guaranteed loan	1,448	1,379	1,393	1,429	1,632
National defense student loan	1,130	1,050	1,737	956	1,185
Own professional school loan	1,322	1,316	1,262	1,482	1,210
State government loan	1,452	1,437	1,426	1,507	1,401
Private bank loan	1,397	955[2]	1,452	1,872	1,361
Other loans	1,675	1,814	1,052	1,884	1,836

Table 30

PROPORTION OF SINGLE AND MARRIED MEDICAL STUDENTS REPORTING INCOME BY SOURCE AND BY CONTROL OF MEDICAL SCHOOL

Source of income	All medical students			Single medical students			Married medical students		
	All schools	Public schools	Private schools	All schools	Public schools	Private schools	All schools	Public schools	Private schools
	Proportion of students reporting source								
Own earnings and savings	67	68	67	71	71	71	64	66	60
Spouse's contribution	38	41	33				78	79	78
Gifts/loans from family	54	50	61	65	65	66	42	37	53
Federal health professions scholarship	18	19	16	18	21	15	17	17	17
NIH-supported research	6	6	6	5	5	5	6	6	6
Other Federal research grants, etc	4	5	3	3	3	3	5	6	3
State government scholarship	8	7	9	9	9	8	8	6	10
Other non-refundable funds	23	18	30	22	17	29	23	20	30
Federal health professions loan	26	29	22	26	31	20	25	27	23
Federal Office of Education guaranteed loan	10	12	6	10	12	6	10	12	7
National defense student loan	3	4	2	3	3	2	4	4	3
Own professional school loan	10	7	15	12	9	16	8	5	15
State government loan	11	12	9	11	11	10	11	12	9
Private bank loan	9	10	7	6	7	5	11	13	9
Other loans	12	13	11	13	14	12	11	12	11

Table 31

PROPORTION OF SINGLE AND MARRIED MEDICAL STUDENTS REPORTING INCOME BY SOURCE AND BY MEDICAL SCHOOL

Source of income	Proportion of students reporting source				
	All classes	Freshman	Sophomore	Junior	Senior
	Single medical students				
Own earnings and savings	71%	76%	73%	69%	57%
Spouse's contribution					
Gifts/loans from family	65	65	67	64	63
Federal health professions scholarship	18	15	16	23	24
NIH-supported research	5	2	10	3	5
Other Federal research grants, etc.	3	3	5	2	1
State government scholarship	9	8	8	10	8
Other non-refundable funds	22	26	20	19	24
Federal health professions loan	26	20	25	30	37
Federal Office of Education guaranteed loan	10	10	8	10	10
National defense student loan	3	3	2	3	3
Own professional school loan	12	13	10	10	14
State government loan	11	10	10	11	13
Private bank loan	6	4	7	8	9
Other loans	13	14	9	15	16
	Married medical students				
Own earnings and savings	64%	76%	66%	55%	62%
Spouse's contribution	78	77	80	79	77
Gifts/loans from family	42	48	42	38	43
Federal health professions scholarship	17	15	17	17	18
NIH-supported research	6	5	9	6	4
Other Federal research grants, etc.	5	12	5	5	2
State government scholarship	8	7	9	7	7
Other non-refundable funds	23	25	21	23	24

Table 31 (Continued)

PROPORTION OF SINGLE AND MARRIED MEDICAL STUDENTS REPORTING INCOME BY SOURCE AND BY MEDICAL SCHOOL

Source of income	All classes	Proportion of students reporting source			
		Freshman	Sophomore	Junior	Senior
		Married medical students (continued)			
Federal health professions loan	25	29	27	24	23
Federal Office of Education guaranteed loan	10	11	13	11	7
National defense student loan	4	4	2	5	4
Own professional school loan	8	6	9	10	8
State government loan	11	16	10	15	8
Private bank loan	11	15	9	11	11
Other loans	11	11	11	11	13

Table 32

PROPORTION OF MEDICAL STUDENTS REPORTING INCOME AND AVERAGE AMOUNT OF INCOME FROM EACH SOURCE, BY MARITAL STATUS

Source of income	All students	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Own earnings and savings					
Percent reporting source	67	71	61	72	66
Average amount reported	$1,578	$1,319	$1,620	$2,011	$2,524
Spouse's contribution					
Percent reporting source	38		86	64	44
Average amount reported	$4,507		$4,876	$3,254	$3,077
Gifts/loans from family					
Percent reporting source	54	65	43	44	34
Average amount reported	$2,143	$2,249	$1,993	$1,735	$2,493
Federal Health Professions Scholarship					
Percent reporting source	18	18	13	27	31
Average amount reported	$ 964	$ 945	$ 928	$ 951	$1,332
NIH supported research					
Percent reporting source	6	5	6	7	2
Average amount reported	$ 844	$ 891	$ 840	$ 692	$ 644
Other Federal research grants, etc.					
Percent reporting source	4	3	4	11	1
Average amount reported	$ 846	$ 890	$ 984	$ 558	$2,000
State government scholarship					
Percent reporting source	8	9	7	9	6
Average amount reported	$ 581	$ 563	$ 570	$ 687	$ 640
Other non-refundable funds					
Percent reporting source	23	22	21	26	41
Average amount reported	$1,752	$1,483	$1,829	$2,448	$2,376

(Continued)

Table 32 (Continued)

PROPORTION OF MEDICAL STUDENTS REPORTING INCOME AND AVERAGE AMOUNT OF INCOME FROM EACH SOURCE, BY MARITAL STATUS

Source of income	All students	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Federal Health Professions Loan					
Percent reporting source	25	26	19	43	45
Average amount reported	$1,084	$ 982	$1,059	$1,434	$1,175
Federal Office of Education guaranteed loan					
Percent reporting source	10	10	9	13	15
Average amount reported	$1,414	$1,382	$1,524	$1,301	$1,357
National Defense Student Loan					
Percent reporting source	3	3	4	3	4
Average amount reported	$1,155	$1,184	$1,151	$ 872	$1,550
Own professional school loan					
Percent reporting source	10	12	8	8	16
Average amount reported	$1,269	$1,234	$1,295	$1,467	$1,262
State government loan					
Percent reporting source	11	11	11	11	12
Average amount reported	$1,404	$1,360	$1,478	$1,341	$1,490
Private bank loan					
Percent reporting source	9	6	9	20	16
Average amount reported	$1,407	$1,422	$1,476	$1,303	$1,291
Other loans					
Percent reporting source	12	13	9	14	24
Average amount reported	$1,624	$1,584	$1,797	$1,500	$1,458

The proportion of single students who reported income from their own earnings and savings was 71 percent in both public and private medical schools. However, single students in private medical schools reported an average of $1,620 from this source, or $357 more than those in public schools. Among married students, the proportion of students with income from their own earnings and savings, and the average amount reported were both greater in public medical schools than in private schools. Married students in public medical schools reported the highest average amount of income from earnings and savings — $1,847, and single students in these schools reported the lowest average amount. While the average amounts reported from this source were almost identical for single and married students in private medical schools, only 60 percent of the married students reported such income as compared to 71 percent of the unmarried students.

Variation between classes in the proportion of students who reported income from their own earnings and savings and in the average amounts reported was inconsistent. Married first year students and married seniors reported the highest average amounts from earnings and savings in both public and private medical schools. The lowest average amounts were reported by single students in their first or third year in the public medical schools.

Twenty-six percent of the single students in medical schools and 25 percent of the married students with no children worked during the 1970-71 school year. The proportion of students who worked increased to 42 percent for married students with one child and 43 percent for those with two or more children.

Table 33

DISTRIBUTION OF MEDICAL STUDENTS BY AVERAGE HOURS WORKED DURING 1970-71 SCHOOL TERM AND MARITAL STATUS

Hours worked per week	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Total students	100%	100%	100%	100%	100%
Total who worked	28	26	25	41	43
1 9 hours	9	9	8	11	10
10 19 hours	12	12	12	9	22
20 29 hours	5	4	4	18	8
30 39 hours	1	1	*	1	2
40 hours or more	1	*	1	2	1
Total who did not work	72	74	75	59	57
Median hours worked	14	13	14	20	13

[1] Includes students who were widowed, divorced, or separated.

* Less than 0.5 percent.

In private medical schools, the proportion of married students who worked increased as family size increased, reaching a high of 52 percent for married students with two or more children. However, in these schools, the proportion of single students who worked was greater than of married students with no children.

Table 34

PROPORTION OF SINGLE AND MARRIED MEDICAL STUDENTS WORKING DURING 1970-71 SCHOOL TERM AND MEDIAN HOURS WORKED BY CONTROL OF MEDICAL SCHOOL

Marital status	All schools	Public schools	Private schools
Single			
Percent who worked	26	26	26
Median hours worked	13	14	12
Married, no children			
Percent who worked	25	28	21
Median hours worked	14	14	12
Married, one child			
Percent who worked	41	44	35
Median hours worked	20	20	19
Married, two or more children			
Percent who worked	43	36	52
Median hours worked	13	16	13

Table 35

DISTRIBUTION OF MEDICAL STUDENTS BY AVERAGE HOURS WORKED DURING 1970-71 SCHOOL TERM AND MEDICAL SCHOOL CLASS

Hours worked per week	All classes	Medical school class: Freshman	Sophomore	Junior	Senior
Total students	100%	100%	100%	100%	100%
Total who worked	28	14	34	30	34
1–9 hours	9	4	13	10	10
10–19 hours	12	5	15	12	16
20–29 hours	5	4	5	6	4
30–39 hours	1	*	1	1	1
40 hours or more	1	*	*	1	2
Total who did not work	72	86	66	70	66
Median hours worked	14	16	14	15	14

* Less than 0.5 percent.

The median number of hours worked per week by medical students was 14, an increase of 2 hours over the median in 1968. For students in public medical schools, the median number of hours worked was 15, as compared to 12 for private medical school students, and for each marital status group, the median hours worked by students in public medical schools exceeded that for students in private medical schools. Married students with no children worked substantially longer hours in both public and private medical schools than students in all other marital status categories.

In both public and private medical schools, the proportion of first-year students who worked during the 1971 school year was considerably smaller than the proportion of employed students in any other class. However, the hours worked by first-year students exceeded the hours worked by students in all the other classes, with the single exception of third-year students in public medical schools.

Nine percent of all medical students reported some income from Federally-supported research or clinical fellowships, traineeships, or grants, and 58 percent of these were supported by the National Institutes of Health (NIH). Three out of every five awards supported by NIH were reported by students from families whose income was less than $15,000 in 1971.

Table 3b
PROPORTION OF SINGLE AND MARRIED MEDICAL STUDENTS WORKING DURING 1970-71 SCHOOL TERM AND MEDIAN HOURS WORKED BY MEDICAL SCHOOL CLASS

Marital status	All classes	Medical school class			
		Freshman	Sophomore	Junior	Senior
Single students -					
Percent who worked	26	10	34	36	31
Median hours worked	13	12	13	14	14
Married students -					
Percent who worked	30	21	34	25	36
Median hours worked	15	21	13	15	14

Income from NIH-supported research or clinical awards averaged $824, whereas income from similar awards from other Federal agencies averaged $846.

Table 37
DISTRIBUTION OF MEDICAL STUDENTS WHO RECEIVED FEDERAL RESEARCH OR CLINICAL FELLOWSHIPS AND AVERAGE AMOUNT OF FELLOWSHIP BY FAMILY INCOME

Family income	NIH-supported research or clinical fellowships			Other Federal research or clinical fellowships		
	Number of students	Percent of students	Average amount	Number of students	Percent of students	Average amount
Total	2,122	100%	$824	1,571	100%	$846
Less than $5,000	198	9	831	138	9	993
$5,000 - $9,999	440	21	873	259	16	1,125
$10,000 - $14,999	563	27	800	223	14	1,082
$15,000 - $19,999	244	11	979	531	34	539
$20,000 - $24,999	200	9	715	150	10	739
$25,000 or more	477	23	769	270	17	969

nts or Relatives Contributions

In the 1971 survey, medical students were asked to provide the amount of income contributed by parents or relatives. However, the amounts reported and the proportion of students reporting such income are not strictly comparable to similar information reported in 1968, since the earlier survey asked for information on the amounts of "loans and/or gifts from parents, in-laws, other relatives and friends," a somewhat different concept. As a result, the following comparisons of data from these two surveys should be viewed with caution.

Only 54 percent of all medical students reported income from parents or relatives contributions in 1971, while 65 percent of the medical students had reported income from "loans and/or gifts" from family or friends in 1968 (See Tables 28 through 32).

The proportion of single medical students who had income from parents or relatives' contributions was 65 percent in 1971, or nearly double the proportion of married students with two or more children who had such income (34 percent). However, the average amount reported by the latter group was $2,393, as compared with an average of $2,249 for single students. Forty-three percent of the married students with no children reported an average of $1,993 from parents or other relatives, while 44 percent of those with one child averaged $1,735 from this source.

The proportions of married medical students who had financial help from parents or other relatives varied by class, and much more so than the proportions for single medical students. For married medical students the proportion receiving financial assistance from parents ranged from 38 percent for juniors to 48 percent for freshmen. For single medical students, the proportion ranged from 63 percent for seniors to 67 percent for sophomores.

The highest average amounts from parents were reported by juniors, regardless of their marital status. Married students in each class received, on the average, smaller amounts from this source than their unmarried classmates (See Table 29).

Spouse's Earnings

Seventy-eight percent of all married medical students reported some income from spouse's earnings. Among married students with two or more children, the proportion of students reporting income from spouse's earnings was 44 percent in 1971, down from 50 percent in 1968; the proportions for the other two groups of married students each declined by only one percentage point.

On the average, spouse's contributions were slightly higher in the private medical schools than in the public schools, but the proportions of students reporting such income were almost identical (See Tables 28 and 30).

Loans Outside Family

Income from loans outside their family was reported by 54 percent of all medical students in 1971, an increase from 42 percent in 1968. These loans were obtained from a variety of sources. Loans from funds made available under HPEAA were utilized by 22 percent

Table 38

NUMBER OF MEDICAL STUDENTS REPORTING LOANS FROM VARIOUS SOURCES AS INCOME FOR 1970, AGGREGATE AMOUNT OF LOANS, AND PERCENT DISTRIBUTION OF LOAN MONEY, BY MEDICAL SCHOOL CLASS

Source of loan	All classes	Medical school class: Freshman	Sophomore	Junior	Senior
Number of students reporting loans					
All sources [1]	21,816	5,996	5,429	5,417	4,974
Federal Health Professions	10,188	2,537	2,646	2,565	2,440
Office of Education	3,925	1,176	1,074	1,005	670
Medical school [2]	4,003	1,143	992	959	909
State government	4,242	1,068	1,057	1,265	852
Private bank	3,483	867	815	915	886
All other	6,087	1,779	1,201	1,587	1,521
Aggregate amount of loans					
All sources	$41,846,000	$10,976,000	$9,321,000	$11,706,000	$9,843,000
Federal Health Professions	11,053,000	3,019,000	2,269,000	2,913,000	2,852,000
Office of Education	5,553,000	1,551,000	1,550,000	1,419,000	1,033,000
Medical school [2]	5,083,000	1,447,000	1,330,000	1,256,000	1,050,000
State government	5,959,000	1,411,000	1,462,000	1,822,000	1,264,000
Private bank	4,901,000	923,000	1,183,000	1,586,000	1,209,000
All other	9,297,000	2,625,000	1,527,000	2,710,000	2,435,000
Percent distribution of loan money					
All sources	100%	100%	100%	100%	100%
Federal Health Professions	26	28	24	[illegible]	29
Office of Education	13	14	17	12	10
Medical school [2]	12	13	14	11	11
State government	14	13	16	15	13
Private bank	12	8	13	13	12
All other	23	24	16	24	25

[1] Number of students by source adds to more than total because some students reported more than one source of loan.

[2] Except HPEAA loans.

all medical students in 1971. Other loan sources utilized by medical students include: other Federal funds (e.g., Office of Education), their own professional school or university, private banks, fraternal organizations, States, medical societies, foundations, and loan companies. The proportion of medical students' income from loans outside the family was 19 percent in 1971, an increase from 13 percent in 1968.

Table 39

PROPORTION OF MEDICAL STUDENTS REPORTING LOANS FROM VARIOUS SOURCES AS INCOME FOR 1971 AND AVERAGE AMOUNT REPORTED, BY MARITAL STATUS

Source of loan	All students [1]	Marital status: Single	Married, no children	Married, one child	Married, two or more children
Percent of students reporting loans					
All sources	54%	54%	49%	69%	74%
Federal health professions	25	25	18	43	43
Office of Education	10	9	9	13	15
Own professional school [2]	10	11	8	8	16
State government	10	10	11	11	12
Private bank	9	6	8	20	15
All other	12	13	9	13	24
Average amount reported					
All sources	$1,310	$1,257	$1,373	$1,380	$1,313
Federal health professions	1,084	982	1,059	1,434	1,175
Office of Education	1,414	1,382	1,524	1,301	1,357
Own professional school [2]	1,269	1,234	1,295	1,467	1,262
State government	1,404	1,360	1,478	1,341	1,490
Private bank	1,407	1,422	1,476	1,303	1,291
All other	1,624	1,584	1,797	1,500	1,458

[1] Includes students who were widowed, divorced, or separated.

[2] Except HPEAA loans.

More than 21,800 medical students reported borrowing amounts from non-family sources in 1971, totaling $41.8 million. The average loan amount increased from $370 per medical student enrolled in 1963-64 to $623 in 1967-68 and $1,035 in 1970-71.

Table 40
PROPORTION OF MEDICAL STUDENTS REPORTING LOANS FROM VARIOUS SOURCES AS INCOME FOR 1971 AND AVERAGE AMOUNT REPORTED, BY CONTROL OF MEDICAL SCHOOL

Source of loan	All schools	Public schools	Private schools
Percent of students reporting loans			
All sources	54.[illegible]	56.7	51.[illegible]
Federal health professions	25	28	21
Office of Education	10	12	6
Own professional school	10	7	15
State government	10	11	9
Private bank	9	10	7
All other	12	12	11
Average amount reported			
All sources	$1,310	$1,259	$1,402
Federal health professions	1,084	1,068	1,118
Office of Education	1,414	1,408	1,432
Own professional school	1,269	1,020	1,443
State government	1,404	1,382	1,447
Private bank	1,407	1,351	1,533
All other	1,624	1,528	1,790

The proportion of medical students reporting loans in 1971 ranged from 49 percent for married students with no children to 74 percent for those with two or more children. In 1968, 37 percent of the married students with no children and 63 percent of those with two or more children reported loans. Among single medical students, the proportion with loans increased from 42 percent in 1968 to 54 percent in 1971.

The proportion of students in the private medical schools with loans from the medical schools or university was more than double the comparable proportion in the public medical schools, probably because of greater availability of funds. This relationship was reversed for students reporting loans from Federal Office of Education funds. Proportionately more students in public medical schools reported HPEAA loans than students in private schools.

Loans from HPEAA funds totaled more than $11.0 million during the 1970-71 school year, a decrease of $2.5 million from the aggregate amount from this source in 1967-68. The number of students reporting loans from HPEAA funds also decreased, from 10,923 to 10,188, and the average loan amount decreased from $1,240 to $1,084 over this period.

Of the 21,800 medical students who borrowed money in 1971, approximately 13,500 borrowed from only one source. One out of every three students who used only one loan source borrowed from HPEAA funds, but the average amount borrowed from this source was smaller than the average from any other single source.

Tables 41A and 41B show the average amounts borrowed by medical students who combined HPI AA loans with loans from other non-family sources, and by those students who utilized the same number of loan sources but did not have HPI AA loans.

Table 41A.
NUMBER AND AVERAGE AMOUNT OF LOANS REPORTED BY STUDENTS IN PUBLIC MEDICAL SCHOOLS BY SOURCE OF LOAN AND MARITAL STATUS

Number and source of loan	All students		Marital status: Single		Married, no children		Married, one child		Married, two or more children	
	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed
One source:										
Federal Health Professions	2,748	$1,077	1,662	$1,010	634	$1,186	357	$1,245	95	$ 903
Federal Office of Education	1,127	1,430	519	1,397	430	1,556	128	1,218	50	1,220
Own professional school	599	1,365	300	1,503	198	986	63	2,548	38	300
State government	971	1,357	471	1,336	429	1,394	54	1,205	17	1,500
Private bank	903	1,514	341	1,193	441	1,796	105	1,295	16	2,000
All other	1,614	1,714	808	1,747	550	1,830	185	1,068	71	2,126
Two sources:										
Federal Health Professions and other loans	3,338	2,437	1,611	2,251	789	2,311	850	2,879	88	2,709
All other combinations	1,318	2,393	689	2,412	406	2,433	209	2,337	14	1,100
Three sources:										
Federal Health Professions and other loans	647	3,364	282	3,331	132	4,202	61	3,122	172	2,861
All other combiantions	278	3,637	190	3,396	69	4,366	19	3,400	--	
Four sources:										
Federal Health Professions and other loans	108	4,359	36	5,476	35	3,566	14	2,500	23	4,950
All other combinations	13	5,800			13	5,800	-	-	--	-
Five sources:										
Federal Health Professions and other loans	12	6,300	-	-	12	6,300	-		-	-
All other combinations	-	--		-	-	-				--

-- None. [1] Except HPEAA loans.

Table 41B

NUMBER AND AVERAGE AMOUNT OF LOANS REPORTED BY STUDENTS IN PRIVATE MEDICAL SCHOOLS BY SOURCE OF LOANS AND MARITAL STATUS

Number and source of loan	All students		Marital status: Single		Married, no children		Married, one child		Married, one or more children	
	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed
One source:										
Federal Health Professions	1,699	$1,208	909	$1,077	578	$1,205	130	$1,376	82	$2,408
Federal Office of Education	592	1,451	219	1,493	155	1,387			18	1,500
National defense	183	1,192	132	1,110	39	1,315	12	1,700		-
Own professional school	1,558	1,564	894	1,429	506	1,755	73	1,298	85	2,069
State government	548	1,324	328	1,310	192	1,323	15	1,500	13	1,500
Private bank	432	1,488	176	1,743	207	1,178	33	2,072	16	1,500
All other	717	1,805	406	1,753	211	1,901	41	1,368	59	2,123
Two sources:										
Federal Health Professions and other loans	1,269	2,656	678	2,754	327	2,522	121	2,435	83	2,712
All other combinations	883	3,224	483	2,911	330	3,219	42	7,117	28	2,828
Three sources:										
Federal Health Professions and other loans	376	3,371	212	3,100	59	3,201	90	4,265	15	2,500
All other combinations	77	3,748	77	3,748				-		-
Four sources:										
Federal Health Professions and other loans	51	5,558	27	5,255					24	5,900
All other combinations	15	4,050	15	4,050						-

- None. [1] Except HPEAA loans.

Only 7 percent of the students who had borrowed during their medical school career had made any repayment during the 1970-71 school year. In the public medical schools, 9 percent of the students who borrowed made some repayment in 1971, as compared to 5 percent in the private medical schools. Only 3 percent of the single medical students who reported borrowing had made repayments during the 1970 school year, and the amounts they repaid averaged $935. Among married students, 6 percent of those with two or more children made repayments, averaging $590, while 13 percent of those with no children and of those with one child made repayments, averaging $943 and $876, respectively.

Table 42
PROPORTION OF MEDICAL STUDENTS WHO MADE SOME REPAYMENT OF DEBTS DURING 1970-71 SCHOOL YEAR AND AVERAGE AMOUNT REPAID, BY MARITAL STATUS

Marital status	Proportion of students making repayments	Average amount repaid
All students[1]	7	$920
Single	3	935
Married, no children	13	943
Married, one child	13	876
Married, two or more children	6	590

[1] Includes students who were widowed, divorced, or separated.

Nonrefundable Grants

Twelve percent of medical students' income was derived from nonrefundable grants or scholarships. This is four times the proportion of income accounted for by these sources in 1968. The number of students reporting income from nonrefundable grants nearly doubled from 1968 to 1971, increasing from just over 10,000 to nearly 19,000.

Federal and State sources of nonrefundable funds accounted for about 5 percent of medical students' income, whereas a miscellany of unidentified sources accounted for approximately 7 percent. Scholarships from HPLAA funds accounted for 3 percent of medical students' income in 1971 (See Table 25).

There was considerable variation by class in the proportions of medical students with grants from specific sources. Twenty percent of the senior medical students received HPLAA scholarships, as compared to 15 percent of the first-year students. Only 13 percent of the seniors reported income from other Federal and State grants and scholarships, while 23 percent of the sophomores reported such assistance. Seniors reported larger average amounts from HPLAA scholarships, State government scholarships and non-governmental grant sources, but a smaller amount from NIH-supported research grants than students in the other classes.

Although the highest total average amount of grants received was reported by seniors in the public medical schools, students in the other classes in these schools generally reported smaller average amounts than students in the private medical schools. Average amounts of grants from the sources specified in the questionnaire (HPLAA, other Federal, and State governments) were considerably smaller than average amounts from "other" sources.

All Other Sources of Income

Twenty three percent of all medical students reported income from nonrefundable funds from sources not listed on the questionnaire. These sources accounted for 7 percent of all medical students' income in 1971. An average of $1,752 was reported from other nonrefundable funds, and the average amounts ranged from $1,483 for single students to $2,448 for married students with one child.

Twelve percent of all medical students reported income from "other" loan sources that accounted for 4 percent of total income. The average amount from "other loans" was $1,624, with the lowest average amount $1,458 being reported by married students with two or more children and the highest $1,797 by married students with no children (Table 32).

Table 43

PROPORTION OF MEDICAL STUDENTS WITH GRANTS FROM VARIOUS SOURCES, BY CONTROL OF SCHOOL AND MEDICAL SCHOOL CLASS

Control of medical school and source of grant	Medical school class				
	All classes	Freshman	Sophomore	Junior	Senior
Percent of students with grants:					
All schools: All sources:[1]	47%	48%	46%	47%	45%
Federal Health Professions scholarship	17	15	16	19	20
NIH-supported research	5	3	9	4	5
Other Federal research/training	4	6	5	3	1
State government	8	7	9	8	7
Other	22	25	20	20	23
Public schools. All sources:[1]	45	46	42	47	44
Federal Health Professions scholarship	18	16	15	22	20
NIH-supported research	5	3	9	4	4
Other Federal research/training	5	8	3	5	1
State government	7	9	7	7	6
Other	18	18	14	19	22
Private schools: All sources.[1]	50	52	53	47	47
Federal Health Professions scholarship	16	12	16	15	19
NIH-supported research	5	3	9	4	6
Other Federal research/training	3	2	6	2	1
State government	9	5	10	11	9
Other	28	37	28	23	26

[1] Percent of students by source adds to more than total because some students reported more than one source of grant.

Table 44

AVERAGE AMOUNTS OF GRANTS FROM VARIOUS SOURCES REPORTED BY MEDICAL STUDENTS, BY CONTROL OF SCHOOL AND MEDICAL SCHOOL CLASS

Control of medical school and source of grant	All classes	Medical school class			
		Freshman	Sophomore	Junior	Senior
Average amount of grants					
All schools All sources	$1,199	$1,130	$1,024	$1,207	$1,490
Federal Health Professions scholarship	964	972	867	981	1,032
NIH-supported research	844	939	888	856	648
Other Federal research/training	846	843	705	1,020	959
State government	581	623	523	556	641
Other	1,752	1,468	1,505	1,797	2,328
Public schools All sources	1,146	960	924	1,189	1,601
Federal Health Professions scholarship	907	922	822	922	949
NIH-supported research	789	806	830	768	680
Other Federal research/training	868	810	789	1,049	869
State government	595	613	577	575	611
Other	1,790	1,264	1,307	1,857	2,680
Private schools All sources	1,270	1,397	1,132	1,234	1,349
Federal Health Professions scholarship	1,067	1,087	931	1,107	1,152
NIH-supported research	927	1,215	982	994	616
Other Federal research/training	789	1,056	635	897	1,210
State government	563	651	466	539	672
Other	1,714	1,637	1,660	1,724	1,896

Deficits and Surpluses for 1970-71 School Year

The proportion of medical students who report a balance between income and expenses had decreased from 58 percent in 1964 to 18 percent in 1971. Fifty-six percent of the students with income and expenses in balance in 1971, had achieved this without loans. From 1964 to 1971, the proportion of students whose expenses exceed income has tripled, jumping from 12 percent of all students in 1964, to 17 percent in 1968, and to 37 percent in 1971. There was a 50 percent increase in the proportion of medical students whose income exceeded their expenses, the percentages going from 30 percent in 1964, to 38 percent in 1968, and 45 percent in 1971.

Table 45

COMPARISON OF DISTRIBUTION OF MEDICAL STUDENTS BY RELATIONSHIP BETWEEN INCOME AND EXPENSES, 1964[1], 1968[2], and 1971

Relationship between income and expenses	1964	1968	1971
Total	100%	100%	100%
In balance	58	45	18
With loans	15	16	8
Without loans	43	28	10
Income exceeds expenses	30	38	45
Expenses exceed income	12	17	37

[1] Source: U.S. Department of Health, Education, and Welfare, Public Health Service, *How Medical Students Finance Their Education*, June 1965. PHS Publication No. 1336. U.S. Government Printing Office, Washington, D.C. 20402.

[2] Source: U.S. Department of Health, Education, and Welfare, Public Health Service, *How Medical Students Finance Their Education*, January 1970. PHS Publication No. 1336-1. U.S. Government Printing Office, Washington, D.C. 20402.

One out of every four single medical students reported a balance between income and expenses in 1971, a substantial decline since 1968, when more than one half of the single students reported balanced budgets. The decline was equally dramatic for married students, with the proportion of students with balanced budgets dropping from 26 to 8 percent for married students with no children and from 36 to 17 percent for married students with two or more children over the period from 1968 to 1971.

Table 46

PROPORTION OF MEDICAL STUDENTS REPORTING EXPENSES IN EXCESS OF INCOME AND AVERAGE DEFICITS, BY MARITAL STATUS AND MEDICAL SCHOOL CLASS

Marital status	All classes	Medical school class: Freshman	Sophomore	Junior	Senior
Percent of students with with deficits					
All students [1]	37	40	41	36	31
Single	41	41	44	40	39
Married, no children	31	33	35	31	26
Married, one child	36	37	45	35	30
Married, two or more children	37	54	28	50	25
Average deficit					
All students [1]	$1,511	$1,353	$1,369	$1,521	$1,964
Single	1,077	923	1,038	1,228	1,314
Married, no children	2,074	1,924	1,903	2,058	2,388
Married, one child	2,220	2,306	2,267	1,218	3,002
Married, two or more children	2,242	3,761	1,029	1,500	1,497

[1] Includes students who were widowed, divorced, or separated

Deficits

As would be expected, average deficits were generally higher for married students than for single students. However, variation in the proportion of students with deficits and the average amount of deficit was inconsistent within and across class lines. The lowest average amount of deficit was $923, reported by single first-year students, and the highest was $3,761, reported by married first-year students with two or more children. While for all students, the average deficit increased as family size increased, this pattern was not consistent in the three upper classes.

Table 47
PROPORTION OF MEDICAL STUDENTS REPORTING EXPENSES IN EXCESS OF INCOME AND AVERAGE DEFICITS, BY MARITAL STATUS AND CONTROL OF MEDICAL SCHOOL

Marital status	All schools	Public schools	Private schools
Percent of students with deficits:			
All students [1]	37%	34%	42%
Single	41	38	46
Married, no children	31	28	37
Married, one child	36	36	35
Married, two or more children	37	42	31
Average deficit:			
All students [1]	$1,511	$1,481	$1,549
Single	1,077	955	1,210
Married, no children	2,074	2,092	2,051
Married, one child	2,220	2,217	2,230
Married, two or more children	2,242	1,841	3,081

[1] Includes students who were widowed, divorced, or separated.

In private medical schools, average deficits were considerably higher for single students and married students with two or more children than for those students in public medical schools. Greater proportions of single students and of married students with no children reported deficits in private medical schools than in public, but there was little difference in the proportions of married students with one child who had deficits or the the average amounts of deficit they reported. In the private medical schools, three out of every ten married students with two or more children reported expenses in excess of income, as compared to four out of every ten students in this category in public medical schools.

Surpluses

Forty-five percent of all medical students in 1971 reported income that exceeded their expenses, an increase of 7 percentage points over the proportion in 1968. The proportion of single medical students with surpluses increased from 25 percent in 1968 to 33 percent in 1971, but the average amount of surplus reported by single students dropped slightly, going from $886 in 1968 to $863 in 1971.

Three out of every five married students with no children reported income that exceeded expenses in both 1968 and 1971, and there was an increase of only $12 in the average amount of surplus reported.

Table 48

PROPORTION OF MEDICAL STUDENTS REPORTING INCOME IN EXCESS OF EXPENSES AND AVERAGE SURPLUSES, BY MARITAL STATUS AND CONTROL OF MEDICAL SCHOOL

Marital status	All schools	Public schools	Private schools
Percent of students with surpluses:			
All students [1]	45%	50%	38%
Single	33	38	27
Married, no children	61	66	53
Married, one child	52	53	49
Married, two or more children	46	48	44
Average surplus:			
All students [1]	$1,594	$1,634	$1,512
Single	863	897	804
Married, no children	2,101	2,125	2,050
Married, one child	2,166	2,096	2,412
Married, two or more children	1,018	999	1,052

[1] Includes students who were widowed, divorced, or separated.

Among married medical students with one child, the proportion with income exceeding their expenses increased from 46 percent in 1968 to 52 percent in 1971. The average amount of surplus reported increased also, going from $1,793 in 1968 to $2,166 in 1971, whereas the average amount of surplus reported by married students with two or more children plummeted from $1,969 to $1,018 over this period.

Although increases were observed in the proportion of students with surpluses and in the average amount of surplus, a consistent pattern was apparent among unmarried students only. The average amount of surplus reported by unmarried seniors was $1,192, or more than double the average of $543 reported by unmarried freshmen.

Among married medical students with no children, the proportion with income that exceeded expenses increased from

percent for freshmen to 66 percent for seniors. Seniors reported the largest average surplus ($2,752) in this group of students, and sophomores the lowest ($1,574).

Although the proportion of students with surpluses was substantially greater in public medical schools than in private schools for each marital status category, differences between the average amounts of surplus were generally less than $100. The single exception was among married students with one child, who reported an average surplus of $2,096 in public medical schools and $2,412 in private medical schools. In both public and private schools, married students reported greater surpluses than single students.

Table 49
PERCENT OF MEDICAL STUDENTS REPORTING INCOME IN EXCESS OF EXPENSES BY MARITAL STATUS AND MEDICAL SCHOOL CLASS

Marital status	All classes	Medical school class			
		Freshman	Sophomore	Junior	Senior
Percent of students with surpluses:					
All students [1]	45%	49%	42%	47%	54%
Single	33	31	33	33	39
Married, no children	61	56	58	63	66
Married, one child	52	54	39	58	54
Married, two or more children	46	37	55	43	49
Average surplus:					
All students [1]	$1,594	$1,223	$1,260	$1,622	$2,206
Single	863	543	898	1,028	1,192
Married, no children	2,101	1,776	1,574	1,967	2,752
Married, one child	2,166	2,572	1,944	1,842	2,175
Married, two or more children	1,018	1,073	911	1,116	1,019

[1] Includes students who were widowed, divorced, or separated.

In 1971, 45 percent of the medical students who came from families whose income was less than $10,000 reported expenses that exceeded their income. Forty percent of the students from such families reported surpluses, and 15 percent reported a balance between income and expenses. This latter group relied more heavily on loans than students in any other family income category.

Table 50
DISTRIBUTION OF MEDICAL STUDENTS BY RELATIONSHIP BETWEEN INCOME AND EXPENSES AND FAMILY INCOME

Relationship between income and expenses	All students	Family income: Under $5,000	$5,000–$9,999	$10,000–$14,999	$15,000–$24,999	$25,000 or more
Total	100%	100%	100%	100%	100%	100%
In balance	16	14	16	15	18	22
With loans	9	11	11	9	7	3
Without loans	7	3	5	6	11	19
Income exceeds expenses	45	42	39	49	47	47
Expenses exceed income	39	43	45	36	35	31

Indebtedness

Sixty-five percent of all medical students had debts in 1971, averaging $4,289. Approximately $3,600, or 85 percent of the average debt, was accounted for by loans made since entry into medical schools. The proportion of students with debts increased as size of family increased, ranging from 61 percent of the single students to 88 percent of the married students with two or more children.

The average amounts of debt reported by single students and by married students without children were nearly equal. Married students with one child reported an average indebtedness of $4,632, while for those with two or more children, the average amount climbed to $7,007.

Table 51
PROPORTION OF MEDICAL STUDENTS WITH DEBTS AND AVERAGE AMOUNT OF DEBT REPORTED, BY MARITAL STATUS

Marital status	Proportion of students with debts	Average amount of debt
All students[1]	65%	$4,289
Single	61	4,100
Married, no children	65	4,086
Married, one child	81	4,632
Married, two or more children	88	7,007

[1] Includes students who were divorced, widowed, or separated.

The proportion of students with debts increased for each year of medical school, ranging from 61 percent for freshmen to 72 percent for seniors. This pattern was repeated for the average amounts of debt reported which ranged from $2,975 for freshmen to $5,504 for seniors.

Table 52
PROPORTION OF MEDICAL STUDENTS WITH DEBTS AND AVERAGE AMOUNT OF DEBT REPORTED, BY MARITAL STATUS

Medical school class	Proportion of students reporting debts		Average amount of debts reported	
	1968 [1]	1971	1968 [1]	1971
All classes	44%	65%	$3,046	$4,289
Freshman . .	25	61	1,557	2,975
Sophomore .	47	62	2,088	3,545
Junior	52	68	3,420	5,194
Senior	52	72	4,397	5,504

[1] Debts for college and medical education. From Table 60, *How Medical Students Finance Their Education*, January 1970. PHS Publication No. 1336-1. U.S. Government Printing Office, Washington, D.C. 20402.

PART 5

SUMMARY OF FINDINGS FOR OSTEOPATHIC STUDENTS

The proportion of all osteopathic students who were married was 60 percent, with the proportions by class ranging from 50 percent for freshmen to 76 percent for seniors.

In general, osteopathic students came from families in which the income and father's educational level were above the average for all families in the United States. Twenty-nine percent of all osteopathic students came from cities of 500,000 or more population, while only 16 percent of the total United States population lived in such cities.

Total expenses for all osteopathic students averaged $6,710. Due to increases in amounts spent for board and lodging and other (non-school) items, osteopathic students' average annual expenses increased as family size increased, ranging from $4,878 for unmarried students to $8,519 for married students with two or more children.

School expenses (tuition, fees, books, etc.) averaging $2,520 accounted for 38 percent of the annual expenses reported by osteopathic students, while board and lodging accounted for an additional 36 percent. The remaining 26 percent was accounted for by miscellaneous and unspecified expense items, such as transportation, taxes, and insurance.

Seven out of every ten osteopathic students reported income from their own earnings and savings, and the average amount reported was $1,675. Three out of every ten students worked during the school year. Gifts and/or loans from family were reported by 52 percent of all osteopathic students, and averaged $2,159.

Osteopathic students who were married reported income from spouse's earnings ranging from 21 percent of total income for those with two or more children to 53 percent for those with no children. The smallest average amount of income from spouse's earnings was $3,496 for married students with one child while the largest was $4,658 for married students with no children.

Seven out of every ten osteopathic students reported income from loan sources outside their families. At the time of the survey, osteopathic students had received $3.5 million in loans.

Nearly one-half of the osteopathic students reported income from scholarships or other nonrefundable grants. The average amount received from these sources was $812.

Fifty percent of all osteopathic students reported deficits in 1971. An additional 8 percent balanced their budgets with income from loans. Only 5 percent of the students reported balanced budgets without loans, and 37 percent expected income to exceed their expenses. The average amount of deficits reported was $2,107. Eight out of every ten osteopathic students reported debts. The average amount of debt increased for each year of school, and ranged from $3,457 for freshmen to $9,796 for seniors.

PART 6

For a discussion of response rates for osteopathic students, please see page xiv of this report.

Table 53
DISTRIBUTION OF OSTEOPATHIC SCHOOLS BY PERCENT OF RETURNS

Percent of returns	Number of osteopathic schools
Total	7
Less than 75	
76 - 80	1
81 - 85	2
86 - 90	2
91 - 95	1
96 - 100	1

Table 54
COMPLETENESS OF RETURNS FOR EACH OSTEOPATHIC SCHOOL CLASS

Osteopathic school class	Total students academic year 1970 – 71	Questionnaires mailed	Percent returned
All classes	2,151	1,062	87
Freshman	623	303	90
Sophomore	555	278	86
Junior	498	249	90
Senior	475	232	82

Marital Status

The proportion of married students in osteopathic schools increased from 57 percent in 1968 to 60 percent in 1971. There was an increase in the proportion of married students in each class except the junior class, where the proportion decreased from 66 percent in 1968 to 58 percent in 1971.

Table 55
DISTRIBUTION OF OSTEOPATHIC STUDENTS BY MARITAL STATUS AND OSTEOPATHIC SCHOOL CLASS

Marital status	All classes	Osteopathic school class			
		Freshman	Sophomore	Junior	Senior
Number of students	2,151	623	555	498	475
All students [1]	100%	100%	100%	100%	100%
Single	40	50	41	42	24
Married, no children	35	30	38	35	38
Married, one child	14	11	12	15	17
Married, two or more children	11	9	9	7	21

[1] Includes students who were divorced, widowed, or separated.

Among married osteopathic students in 1971, [illegible] percent had no children, 22 percent had only one child, and the remaining 19 percent had two or more children. The distribution of osteopathic students by marital status and osteopathic school class is shown in Table 55.

Family Income

The distribution of osteopathic students and medical students by family income is presented in Table 56, with a similar distribution for all families in the United States. Whereas the median family income of $12,232 for osteopathic students was lower than that for families of medical students, it was higher than the median income for all families in the United States. Fourteen percent of all osteopathic students in 1971 came from families with an income of $25,000 or more while only 5 percent of all families had incomes in this category.

Father's Occupation

Eleven percent of all osteopathic students and 15 percent of all medical students in 1971 came from a family in which the father was a physician. An additional 5 percent of medical and osteopathic

students' fathers worked as professionals in other health-related occupations. Only 2 percent of all employed males 40 years old or over in the United States were physicians or worked in health-related professional occupations.

Table 56
COMPARISON OF FAMILY INCOME OF OSTEOPATHIC STUDENTS, MEDICAL STUDENTS, AND OF ALL FAMILIES IN THE UNITED STATES, 1970

Family income	Osteopathic students [1]	Medical students [1]	All families [2]
Total	100%	100%	100%[3]
Less than $5,000	12	7	19
$ 5,000 - $ 9,999	25	20	32
$10,000 - $14,999	28	25	27
$15,000 - $24,999	21	26	18
$25,000 or more	14	22	5
Median income	$12,232	$14,616	$9,867

[1] Based on students who reported on family income.
[2] Source: U.S. Department of Commerce, Bureau of the Census. *Current Population Reports, Consumer Income*, Series P-60, No. 80, October 4, 1971, Table 16.
[3] Details may not add to total due to independent rounding.

Table 57

DISTRIBUTION OF OSTEOPATHIC AND MEDICAL STUDENTS BY FATHER'S OCCUPATION AND COMPARISON WITH OCCUPATIONAL DISTRIBUTION OF EMPLOYED MALES, 40 YEARS OLD AND OVER IN THE UNITED STATES, 1970

Occupation	Osteopathic students' fathers	Medical students' fathers	Employed males, 40 years old and over [1]
All occupations	100%	100%	100%
Physician	11	15	1
Medical and other health worker	5	5	1
Other professional and technical	18	28	11
Owner, manager, proprietor	25	20	14
Clerical	5	5	7
Sales	8	7	7
Craftsman, skilled worker	16	10	22
Unskilled worker	8	6	31
Farmer, farm worker	4	3	6

[1] Source: U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Occupational Characteristics, 1970 Census of Population, PC(2)-7A.

Table 58

DISTRIBUTION OF OSTEOPATHIC AND MEDICAL STUDENTS BY FATHER'S EDUCATIONAL LEVEL IN COMPARISON WITH THE EDUCATIONAL LEVEL OF MALES 40 YEARS OLD AND OVER IN THE UNITED STATES, 1970

Educational level	Osteopathic students' fathers	Medical students' fathers	United States males 40 years and over [1]
All levels	100%	100%	100%
Eighth grade or less	13	8	38
Some high school	11	6	19
Completed high school	19	17	23
Specialized technical training	8	6	–[2]
Some college	14	14	9
Completed college	11	14	6
Graduate or professional	24	35	5

[1] Source: U.S. Department of Commerce, Bureau of the Census, *Detailed Characteristics*, United States Summary, 1970 Census of Population, PC(1)–D1.

[2] Category not reported separately.

Father's Educational Level

The proportion of osteopathic students with fathers who had education beyond college was 24 percent. Only 5 percent of the male population 40 years old or over in the United States in 1970 had education at this level. The 1971 survey indicated that 13 percent of osteopathic students' fathers had ended their formal education before high school; this compares with 17 percent of students' fathers in this category reported in the 1968 survey.

Size of Hometown

The proportion of osteopathic students from cities having a total population of 100,000 or more dropped by 1 percentage point (43 percent to 42 percent) from 1968 to 1971, and there was no change in the proportion of students from the smallest places.

Average Annual Expenses

As in previous studies, marital status was the most important determinant in the amount of money needed by an osteopathic student. For unmarried students, the average annual expense in 1971 was $4,878; for married students the average was $7,945. These amounts represent increases of 28 and 25 percent, respectively, over comparable figures for 1968.

Table 59

DISTRIBUTION OF OSTEOPATHIC AND MEDICAL STUDENTS BY SIZE OF HOMETOWN IN COMPARISON WITH DISTRIBUTION OF THE TOTAL POPULATION OF THE UNITED STATES, 1970

Size of hometown	Osteopathic students	Medical students	Total United States population, 1970 [1]
Total	100%	100%	100%
500,000 or more	29	20	16
100,000–499,999	13	22	12
25,000–99,999	19	23	17
5,000–24,999	21	19	17
4,999 or less	18	18	38

[1] Source: U.S. Department of Commerce, Bureau of the Census, *Number of Inhabitants*, United States Summary, 1970 Census of Population, PC(1) A1.

Table 60

AVERAGE ANNUAL EXPENSES OF OSTEOPATHIC STUDENTS BY MARITAL STATUS AND OSTEOPATHIC SCHOOL CLASS

Marital status	All classes	Osteopathic school class			
		Freshman	Sophomore	Junior	Senior
Total [1]	$6,710	$6,180	$6,666	$6,831	$7,330
Single	4,878	4,656	4,690	5,136	5,394
Married, no children	7,799	7,499	8,109	7,601	7,944
Married, one child	7,850	6,999	7,555	8,810	7,895
Married, two or more children	8,519	9,430	8,413	8,888	7,948

[1] Includes data for students who were widowed, divorced, or separated.

Table 61
DISTRIBUTION OF OSTEOPATHIC STUDENTS BY TOTAL ANNUAL EXPENSES AND MARITAL STATUS

Total annual expenses	All students[1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Number of students	2,151	866	757	287	241
All students	100%	100%	100%	100	100%
Less than $4,000	9	20	1	1	1
$ 4,000 $4,999	19	11	5	3	2
$ 5,000 $5,999	16	24	12	13	5
$ 6,000 $6,999	15	8	19	23	18
$ 7,000 $7,999	16	4	24	27	24
$ 8,000 $8,999	11	2	19	14	16
$ 9,000 $9,999	6	1	9	6	14
$10,000 or more	8	*	11	13	20

[1] Includes students who were widowed, divorced, or separated.
* Less than 0.5 percent.

Annual expenses reported by married students with two or more children averaged $8,519 in 1971, and only 8 percent of these students reported total expenses of less than $6,000. Married students with no children reported expenses averaging $7,799, as compared to $7,850 reported by married students with one child. About 82 percent of the students in each of these groups had expenses of $6,000 or more. Only 15 percent of the single students had expenses this high.

Average annual expenses for unmarried osteopathic students increased for each class year, ranging from $4,656 for freshmen to $5,394 for seniors. Among married students, freshmen with one child reported the lowest average expenses, and their classmates with two or more children reported the highest average expenses.

As would be expected, osteopathic students who lived with their parents or other relatives reported the lowest average expenses. However, four out of every five osteopathic students lived in apartments or houses not under school control, and their expenses were substantially higher on the average than those for osteopathic students with other living arrangements.

Table 62
AVERAGE ANNUAL EXPENSES OF OSTEOPATHIC STUDENTS BY LIVING ARRANGEMENTS AND MARITAL STATUS

Living arrangement	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Total	$6,710	$4,878	$7,799	$7,850	$8,519
Dormitory or school owned or controlled	5,727	5,019	7,113	5,666	6,152
Other apartment or house	7,142	5,133	7,859	8,019	8,742
Private or fraternity room	5,035	4,600	8,833	7,076	9,321
Parent's or relative's home	4,652	4,161	6,751	5,575*	8,086*
Other	5,765	4,177	6,845	5,520*	6,420*

[1] Includes data for students who were widowed, divorced, or separated.
* Based on data from fewer than 10 students.

The total average annual expense of $6,710 reported by osteopathic students was about 7 percent greater than the total average expenses reported by medical students in private schools in 1971, and the osteopathic students' average expenses were greater in each expense category (Table 64). However, the percent distributions by expense item are almost identical for the two groups of students.

Table 63
AVERAGE ANNUAL EXPENSES OF OSTEOPATHIC STUDENTS FOR VARIOUS ITEMS, BY MARITAL STATUS

Expense item	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Total expenses	$6,710	$4,878	$7,799	$7,850	$8,519
School expenses	2,520	2,425	2,532	2,520	2,546
Board and lodging	2,420	1,572	2,857	3,023	3,478
All other expenses	1,770	881	2,410	2,307	2,495

[1] Includes students who were widowed, divorced, or separated.

Table 64
AVERAGE ANNUAL EXPENSES AND PERCENT DISTRIBUTION OF EXPENSES OF OSTEOPATHIC STUDENTS AND MEDICAL STUDENTS FOR VARIOUS ITEMS, 1971

Expense item	Osteopathic students		Medical students in private schools	
	Annual expense	Percent distribution of expense	Annual expense	Percent distribution of expense
Total expenses	$6,710	100%	$6,242	100%
School expenses	2,520	38	2,431	39
Board and lodging	2,420	36	2,279	36
All other expenses	1,770	26	1,532	25

PART 7

For all osteopathic students, the proportions of income from nonrefundable and from refundable funds changed very little from 1968 to 1971. However, there were substantial changes in the proportions of income derived from specific sources. The proportion of osteopathic students' income from their own earnings and savings dropped from 24 percent to 18 percent, and loans from HPEAA accounted for only 5 percent of income in 1971 as compared to 12 percent in 1968. Since there was little change in the proportion of income from loans reported by osteopathic students, it is apparent that osteopathic students used additional loan sources to compensate for the drop in HPEAA aid (Table 65 and Reference 1, Table 75).

The average amount borrowed by osteopathic students ranged from approximately $2,100 for single students and married students with no children, to nearly $3,000 for married students with two or more children.

Table 65

SOURCE OF INCOME OF OSTEOPATHIC STUDENTS BY MARITAL STATUS

Source of income	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Number of students:	2,151	866	757	287	241
Total income	100%	100%	100%	100%	100%
Total nonrefundable funds	74	70	81	69	68
Own earnings and savings	18	23	13	19	23
Spouse's earnings	30	-	53	30	21
Gifts/loans from family	18	38	10	10	11
Federal Health Professions scholarship	3	3	2	4	3
State government scholarship	1	1	1	2	1
Other nonrefundable funds [2]	4	4	2	4	10
Total refundable funds	26	30	19	31	32
Federal Health Professions loan	5	5	3	7	5
Federal Office of Education guaranteed loan	4	5	4	4	6
Own professional school loan	1	1	*	2	1
State government loan	6	8	5	6	5
Private bank loan	3	3	2	3	5
Other loans	7	8	5	9	10

[1] Includes students who were widowed, divorced, or separated.

[2] Includes Federal research grants and clinical fellowships which accounted for less than 0.5 percent of total income.

* Less than 0.5 percent.

Table 66

NUMBER AND AVERAGE AMOUNT OF LOANS REPORTED BY OSTEOPATHIC STUDENTS, BY SOURCE OF LOAN AND BY MARITAL STATUS OF STUDENTS

Number and source of loan	All students[1]		Marital Status: Single		Married, no children		Married, one child		Married, two or more children	
	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of students	Average amount borrowed	Number of student	Average amount borrowed
All sources	1,502	$2,298	525	$2,127	527	$2,095	245	$2,528	205	$2,981
One source	570	1,384	207	1,405	238	1,411	63	1,397	62	1,224
Federal Health Professions	207	747	71	739	79	764	26	592	31	854
Federal Office of Education	80	1,513	24	1,483	37	1,540	10	1,600	9	1,388
Own professional school	18	748	10	1,000	2	250	3	240	3	750
State government	138	1,533	52	1,532	67	1,553	11	1,445	8	1,500
Private bank	37	2,105	17	2,017	18	2,311	2	1,000		-
All other	90	2,337	31	2,446	35	2,064	11	3,327	11	2,063
Two sources	569	2,285	206	2,250	187	2,179	110	2,302	66	2,679
Federal Health Professions and other	435	2,118	164	2,143	138	1,954	90	2,144	43	2,501
All other combinations	134	2,831	42	2,666	49	2,811	20	3,018	23	3,013
Three sources	287	3,417	98	2,983	86	3,448	48	3,582	55	3,998
Federal Health Professions and other	244	3,294	84	2,839	71	3,334	43	3,498	46	3,875
All other combinations	43	4,112	14	3,846	15	3,986	5	4,300	9	4,628
Four sources	68	4,832	10	4,205	16	4,031	24	4,482	18	6,361
Federal Health Professions and other	61	4,786	10	4,205	16	4,031	20	4,438	15	6,443
All other combinations	7	5,236					4	4,700	3	5,950
Five sources	8	6,500	4	6,975					4	6,025
Federal Health Professions and other	6	5,933	2	5,750					4	6,025
All other combinations	2	8,200	2	8,200						-

- None

[1] Includes data for students who were widowed, divorced, or separated.

Table 67

PROPORTION OF OSTEOPATHIC STUDENTS REPORTING INCOME AND AVERAGE AMOUNT OF INCOME FROM EACH SOURCE, BY MARITAL STATUS

Source of income	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Own earnings and savings					
% reporting source	69	72	65	66	73
Average amount reported	$1,675	$1,421	$1,530	$2,033	$2,555
Spouse's earnings					
% reporting source	44		85	61	44
Average amount reported	$4,325		$4,658	$3,496	$3,799
Gifts and/or loans from family					
% reporting source	52	71	39	44	34
Average amount reported	$2,159	$2,374	$1,883	$1,518	$2,591
Federal Health Professions Scholarship					
% reporting source	35	32	33	50	40
Average amount reported	$469	$484	$408	$503	$535
State Government Scholarship					
% reporting source	7	6	6	10	7
Average amount reported	$946	$888	$939	$1,055	$950
Other non-refundable funds					
% reporting source	15	13	13	17	27
Average amount reported	$1,600	$1,243	$1,252	$1,610	$2,673
Federal Health Professions Loan					
% reporting source	45	40	40	63	58
Average amount reported	$661	$609	$590	$816	$737

(Continued)

Table 67 (Continued)

PROPORTION OF OSTEOPATHIC STUDENTS REPORTING INCOME AND AVERAGE AMOUNT OF INCOME FROM EACH SOURCE, BY MARITAL STATUS

Source of income	All students [1]	Marital status			
		Single Single	Married, no children	Married, one child	Married, two or more children
Federal Office of Education Guaranteed Loan					
% reporting amount	18	14	18	18	30
Average amount reported	$1,564	$1,522	$1,561	$1,575	$1,630
National Defense Student Loan					
% reporting amount	5	3	4	10	9
Average amount reported	$1,208	$959	$1,431	$1,250	$1,176
Own professional school loan					
% reporting amount	10	8	7	19	11
Average amount reported	$628	$572	$561	$622	$907
State government loan					
% reporting source	25	25	23	31	24
Average amount reported	$1,522	$1,494	$1,601	$1,454	$1,488
Private bank loan					
% reporting source	12	9	11	14	22
Average amount reported	$1,488	$1,284	$1,468	$1,582	$1,752
Other loans					
% reporting source	22	18	21	30	33
Average amount reported	$1,714	$1,797	$1,545	$1,597	$2,019

[1] Includes students who were widowed, divorced, or separated.

Forty-five percent of all osteopathic students in 1971 reported loans from HPEAA funds, a substantial decrease from the 54 percent who reported such loans in 1968. The average amount of loans reported from HPEAA funds dropped from $1,190 in 1968 to only $661 in 1971. While the proportion of osteopathic students reporting scholarships from HPEAA funds jumped from 14 percent to 35 percent over this period, the average amount received decreased from $605 to $469.

Own Earnings and Savings

In 1971, 69 percent of all osteopathic students reported income from their own earnings and savings, as compared to 67 percent of all medical students. In 1968, the proportion of students reporting income from their own earnings was 83 percent in both medical and osteopathic schools.

Osteopathic students in 197 . reported an average of $1,675 from their earnings and savings, while the average for medical students was $1,578. Seventy one percent of the single osteopathic students and 72 percent of the single medical students reported income from their own earnings and savings. Among married osteopathic students, 67 percent reported an average of $1,851 from their own earnings. In the medical schools, 64 percent of the married students averaged $1,773 from this source. For married students in schools of osteopathy, the average amounts reported ranged from $1,530 for those with no children to $2,555 for those with two or more children.

The proportion of osteopathic students who worked rose from 27 percent in 1968 to 30 percent in 1971. Whereas the proportion of students who worked increased in three of the four marital status categories, there was an especially sharp increase—from 26 percent to 46 percent for married students in the proportion who worked in each "hours worked" category from 10 hours to 40 hours.

Table 68
DISTRIBUTION OF OSTEOPATHIC STUDENTS BY AVERAGE HOURS WORKED DURING 1970-71 SCHOOL TERM AND BY MARITAL STATUS

Hours worked per week	All students [1]	Marital status			
		Single	Married, no children	Married, one child	Married, two or more children
Total students	100%	100%	100%	100%	100%
Total who worked [2]	30	23	27	45	51
1-9 hours	7	5	8	8	4
10-19 hours	14	12	12	17	21
20-29 hours	7	5	5	14	13
30-39 hours	2	1	2	4	6
40 hours or more	1	*	*	1	7
Total who did not work	70	77	77	55	49
Median hours worked	16	15	15	18	20

1 Includes students who were widowed, divorced, or separated.
2 Details may not add to totals due to independent rounding.

From 1968 to 1971, the proportion of students who worked increased for each osteopathic school class except the sophomore class, where the proportion did not change. Forty-six percent of the junior students worked in 1971, as compared to 37 percent in 1968. Thirteen percent of osteopathic school freshmen worked in 1971, as compared to 11 percent in 1968 (Reference 1, Table 79).

Table 69
DISTRIBUTION OF OSTEOPATHIC STUDENTS BY AVERAGE HOURS WORKED DURING 1970-71 SCHOOL TERM AND OSTEOPATHIC SCHOOL CLASS

Hours worked per week	All classes	Osteopathic school class			
		Freshman	Sophomore	Junior	Senior
Total students	100%	100%	100%	100%	100%
Total who worked	30	13	31	46	37
1-9 hours	7	2	7	14	4
10-19 hours	14	7	15	18	17
20-29 hours	7	2	6	8	10
30-39 hours	2	*	2	4	3
40 hours or more	1	1	1	2	2
Total who did not work	70	87	69	54	63
Median hours worked	16	16	16	15	18

* Less than 0.5 percent.

Spouse's Earnings

Seventy-two percent of all married osteopathic students reported some income from their spouses' earnings in 1971. The proportion decreased as family size increased, going from a high of 85 percent for married students with no children to only 44 percent for those with two or more children. Married students with one child reported an average of $3,496 from spouse's earnings, whereas those with two or more children averaged $3,799, and those with no children averaged $4,658 (See Table 67).

Gifts and/or Loans from Family

Seven out of every ten single osteopathic students reported having income in 1971 from gifts and/or loans from their families, but only 4 out of ten married students reported such assistance. The average amount received by single students was $2,374. Although only 34 percent of the married students with two or more children reported income from family gifts and/or loans, they reported the largest average amount $2,591 from this source. Among the married students, the proportion of students receiving gifts and/or loans from family was highest for married students with one child, and the average amount received was lowest for the same group.

Loans Outside Family

Seventy-one percent of all osteopathic students in 1971 reported some income from loans outside their families. This represents a substantial increase over the 61 percent who reported such loans in 1968. The average amount of income from these sources was $1,198 in 1971 as compred to $1,700 in 1968.

Eighty-seven percent of the married students with one child and 85 percent of those with two or more children had borrowed money from non-family sources. Seventy percent of the married students with no children and 64 percent of the single students reported income from these sources.

Forty-five percent of all osteopathic students reported loans from HPEAA funds, but the average amount received $661—was smaller than that from any source except their own professional schools.

At the time of the 1971 survey, osteopathic students had received $3.5 million in loan funds, or almost double the amount reported in 1968.

There was only minor variation between classes in the average amounts of loans reported by osteopathic students; however, the proportion of freshmen reporting non-family loans was much smaller than the proportion for students in the other three classes.

Somewhat surprisingly, the average amount of loans reported by freshmen was larger than the average for each of the other classes.

Table 70

PROPORTION OF OSTEOPATHIC STUDENTS REPORTING LOANS FROM VARIOUS SOURCES AS INCOME FOR 1970-71 SCHOOL YEAR AND AVERAGE AMOUNTS REPORTED, BY OSTEOPATHIC SCHOOL CLASS

Source of loan	All classes	Osteopathic school class			
		Freshman	Sophomore	Junior	Senior
Percent of students reporting loans:					
All sources [1]	71	59	73	75	75
Federal Health Profession	45	30	44	51	56
Other Federal	22	16	26	26	20
Own professional school [2]	10	5	8	10	16
State government	25	25	23	26	24
Private bank	12	11	10	11	16
All other loans	22	16	24	25	24
Average amount reported:					
All sources	$1,198	$1,241	$1,155	$1,173	$1,226
Federal Health Profession	661	593	631	751	649
Other Federal	1,489	1,4[illegible]6	1,520	1,416	1,579
Own professional school [2]	628	3[illegible]9	454	600	845
State government	1,522	1,419	1,467	1,610	1,620
Private bank	1,488	1,597	1,301	1,290	1,664
All other loans	1,714	1,974	1,585	1,512	1,855

[1] Percents for each source add to more than total because some students reported more than one source of loan.

[2] Except Federal Health Professions loans.

Nonrefundable Grants

The proportion of osteopathic students receiving some income from nonrefundable grants has grown from 4 percent in 1964 to 23 percent in 1968 and 49 percent in 1971. An average of $469 from HPEAA scholarships was reported by 35 percent of all osteopathic students in 1971. An average of $1,600 was reported from

Table 71

PROPORTION OF OSTEOPATHIC STUDENTS REPORTING INCOME FROM SCHOLARSHIPS OR GRANTS FROM VARIOUS SOURCES DURING 1970-71 SCHOOL YEAR AND AVERAGE AMOUNTS REPORTED, BY OSTEOPATHIC SCHOOL CLASS

Source of grant	All classes	Osteopathic school class			
		Freshman	Sophomore	Junior	Senior
Percent of students reporting scholarships or grants:					
All sources [1]	49	42	54	47	56
Federal Health Professions	35	22	36	40	44
NIH-supported research/training	2	1	3	1	3
State government	7	6	6	6	8
Other non-refundable funds	15	19	18	7	13
Average scholarship or grant:					
All sources	$812	$906	$785	$751	$805
Federal Health Professions	469	423	450	523	466
NIH-supported research/training	611	304	762	648	540
State government	946	843	966	932	1,036
Other non-refundable funds	1,600	1,528	1,421	1,898	1,845

[1] Percents for each source add to more than total because some students reported more than one source of grant.

miscellaneous sources of nonrefundable funds, including tuition remissions. Scholarships and grants accounted for 8 percent of osteopathic students' income in 1971.

Table 72
DISTRIBUTION OF OSTEOPATHIC STUDENTS BY RELATIONSHIP BETWEEN INCOME AND EXPENSES AND MARITAL STATUS, 1968 and 1970

Relationship between income and expenses	All students[1]	Marital status: Single	Married, no children	Married, one child	Married, two or more children
1967-68 Total[2]	100%	100%	100%	100%	100%
Balance	31	47	17	21	27
With loans	15	20	9	13	17
Without loans	16	27	8	9	10
Income exceeds expenses	39	23	60	47	34
Expenses exceeds income	29	30	23	32	39
1970-71 Total[2]	100%	100%	100%	100%	100%
Balance	13	21	8	5	8
With loans	8	11	6	4	5
Without loans	5	10	2	1	3
Income exceeds expenses	37	26	48	40	37
Expenses exceeds income	50	53	44	55	55

[1] Includes students who were widowed, divorced, or separated.
[2] Details may not add to totals due to independent rounding.

Deficits and Surpluses for 1970-71 School Year

In 1970, one-half of all osteopathic students reported expenses that exceeded their income. This represents a substantial increase over the 29 percent of osteopathic students in this category in 1968. Whereas the proportion of osteopathic students with surpluses declined slightly over this period, there was a considerable drop in the proportion of students with balanced budgets. Within the group of students with income and expenses in balance, the proportion of students who balanced their budgets without loans dropped considerably more from 1968 to 1971 than the proportion who achieved a balance with loans.

Table 73
AVERAGE AMOUNT OF DEFICIT FOR OSTEOPATHIC STUDENTS BY MARITAL STATUS AND OSTEOPATHIC SCHOOL CLASS AND COMPARISON WITH AVERAGE DEFICIT FOR STUDENTS IN PRIVATE MEDICAL SCHOOLS

Marital status	All classes	Osteopathic school class				Medical students in private schools
		Freshman	Sophomore	Junior	Senior	
All students [1]	$2,107	$1,906	$2,097	$2,265	$2,198	$1,549
Single	1,300	1,346	1,159	1,323	1,478	1,210
Married, no children	2,815	2,378	3,164	2,474	3,163	2,051
Married, one child	2,691	2,643	2,277	3,947	1,469	2,230
Married, two or more children	2,354	2,379	2,227	2,720	2,235	3,081

[1] Includes students who were widowed, divorced, or separated.

Average deficits reported by students in osteopathic schools were larger than those reported by students in private medical schools for every marital status category except married students with two or more children.

Table 74
PROPORTION OF OSTEOPATHIC STUDENTS REPORTING EXPENSES IN EXCESS OF INCOME AND AVERAGE DEFICITS, BY OSTEOPATHIC SCHOOL CLASS

Osteopathic school class	Percent of students with deficits	Average deficit
All classes	50%	$2,107
Freshman	48	1,906
Sophomore	55	2,097
Junior	53	2,265
Senior	45	2,198

Indebtedness

Eight out of every ten students in osteopathic schools reported some indebtedness in 1971. As expected, both the proportion of students with debts and the average amount of debt reported increased for each year in school.

About 10 percent of the students who borrowed had made some repayments during the school year.

Table 75
PROPORTION OF OSTEOPATHIC STUDENTS
WITH DEBTS AND AVERAGE AMOUNT OF DEBTS
AS OF JUNE 1971, BY
OSTEOPATHIC SCHOOL CLASS

Osteopathic school class	Percent of students with debts	Average amount of debts
All classes	75%	$5,966
Freshman	72	3,457
Sophomore	79	4,930
Junior	84	6,069
Senior	84	9,796

APPENDICES

Letter and Questionnaire to Health Professions Students:

Letter to Medical Students

Letter to Osteopathic Students

Letter to Dental Students

Letter to Pharmacy Students

Letter to Optometry Students

Letter to Podiatry Students

Letter to Veterinary Medicine Students

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

NATIONAL INSTITUTES OF HEALTH

BETHESDA, MARYLAND 20014

ASSOCIATION OF AMERICAN MEDICAL COLLEGES
SUITE 200, ONE DUPONT CIRCLE N.W. WASHINGTON D.C. 20036

JOHN A. D. COOPER M.D. PH.D.
PRESIDENT

WASHINGTON 202 [illegible]

Dear Student:

On behalf of the Association of American Medical Colleges I would like to encourage your cooperation in the survey of the Health Profession Student Financing currently being undertaken by the Bureau of Health Professions Manpower Education of the U.S. Public Health Service.

As Dr. Endicott's letter indicates, information gained from this survey will have important implications for policy and financial assistance to students in the health professions.

We urge your cooperation in this important study.

Sincerely yours,

John A. D. Cooper, M.D., Ph.D.
President

AOA

American Osteopathic Association

January, 1971

Dear Student

On behalf of the American Osteopathic Association, I would like to encourage your cooperation in the Survey of Health Professions Student Financing. As Dr. Endicott's letter indicates, the information gained from this survey will have important implications for policy in financial assistance to students in the health professions. We urge your cooperation in this important study.

Sincerely yours,

Edward P. Crowell, D.O.

Edward P. Crowell, D.O.

Enclos.

AMERICAN DENTAL ASSOCIATION

Dear Dental Student:

On behalf of the American Dental Association, I would like to encourage your cooperation in completing the Survey of Health Profession Student Financing. As Dr. Endicott's letter indicates, the information gained from this survey will have important implications for developing policy related to financial assistance to students in the Health Professions.

We urge your [illegible]tion in completing the questionnaire and participation [illegible] most important project.

Sincerely,

Thomas J. Ginley, Ph.D.
Associate Secretary
Council on Dental Education

TJG:[illegible]
[illegible]

American Association of Colleges of Pharmacy

[illegible] Pharmacy and Pharmacal Sciences, Purdue University, Lafayette, Indiana [illegible]
ARTHUR [illegible] SCHWARTZING, [illegible] President
[illegible] Pharmacy, University of [illegible], [illegible]
JACK [illegible] HUB, Chairman, [illegible] Committee
College of Pharmacy, University of Washington, Seattle, Washington [illegible]
CHARLES W. BLINEN, Executive Secretary, Professional
[illegible] Avenue, Silver Spring, Maryland 20910

Dear Student

On behalf of the American Association of Colleges of Pharmacy, I would like to [illegible] your cooperation in the survey of health profession student [illegible]. As Dr. [illegible]'s letter indicates, the information gained from this survey will [illegible] applications for policy in [illegible] of assistance to students in all of the health professions. As he states, [illegible] identifying [illegible] student will [illegible] identified.

[illegible]

[illegible]

Charles W. Blinen

Charles W. Blinen
Executive Secretary

[illegible]

AMERICAN OPTOMETRIC ASSOCIATION

Dear Student:

On behalf of the American Optometric Association, I urge your cooperation in the Survey of Health Profession Student Financing. As Dr. Endicott's letter indicates, the information gained from this survey will have important implications for policy in financial assistance to students in the health professions.

Sincerely yours,

J. Harold Bailey
Executive Director

JHB:lg

AMERICAN ASSOCIATION OF COLLEGES OF PODIATRIC MEDICINE

Dear Student:

As you are already aware, the American Association of Colleges of Podiatric Medicine has extended its cooperation to the Bureau of Health Manpower Education, the Public Health Service for the purpose of conducting a Survey of Health Profession Student Financing.

I would like to encourage your cooperation in this very important undertaking. The information gained from this survey will greatly assist the podiatry profession in relating the financial needs for students of podiatric medicine to federal, state, and local agencies.

I thank you for your cooperation in this important study.

Sincerely yours,

Robert W. Oliver

Robert W. Oliver
Executive Director

AMERICAN VETERINARY MEDICAL ASSOCIATION

Dear Student:

On behalf of the American Veterinary Medical Association, I would like to encourage your cooperation in the Survey of Health Profession Student Financing. As Dr. Endicott's letter indicates, the information gained from this survey will have important implications for policy in financial assistance to students in the health professions. We hope you will give your full cooperation in this important study.

Sincerely,

M. R. Clarkson

M. R. Clarkson, D.V.M.
Executive Vice President

DHEW Publication No. 75-13

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION